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ABSTRACT

The chapters of this collection describe a transformational period in higher education. The paradigm shift in higher education requires new organizational models, new strategies, new resources, and new tools, with new ways of thinking, especially about strategic enrollment management (SEM). The chapters of part 1, "The Contextual Framework for Strategic Management," contains: (1) "On the Brink of a Profession" (Stanley E. Henderson); (2) "The Environment for Higher Education Opportunity" (Thomas G. Mortenson); and (3) "Conceptual and Theoretical Thinking about Enrollment Management" (Don Hossler and Larry Hoezee). Part 2, "Operationalizing SEM," contains: (4) "Moving from Theory to Action" (Richard Whiteside); (5) "Models for Successful Change" (Richard Whiteside); and (6) "SEM as a Driver for Institutional Change" (Rita R. Owens). Part 3, "SEM Architecture," contains: (7) "Building the Enrollment Organizational Model" (Tom Huddleston); (8) "Developing a SEM Plan" (Robert J. Massa); (9) "Garnering Resources and Building Infrastructure" (Jim Black); and (10) "Tomorrow's SEM Organization" (David H. Kalsbeek). Part 4, "Harnessing the Power of Technology," contains: (11) "Implementing a Student Information System" (Reta Pikowsky); (12) "Information of the Realm" (R. B. Wilkinson and Ange Peterson); and (13) "Students in the Dot-Com World" (Jim Black). An epilogue summarizes the discussions. (Contains 182 references.) (SLD)

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The American Association of Collegiate Registrars and Admissions Officers' (AACRAO) founded in 1910 is a nonprofit, voluntary, higher education association of more than 9,000 admissions and registrar professionals representing approximately 2,300 institutions in more than 35 countries. AACRAO's mission is to provide professional development, guidelines and voluntary standards to be used by higher education officials regarding the best practices in records management, admissions, enrollment management, administrative information technology and student services. We also provide a forum for discussion on policy initiation, development, interpretation, and implementation at the institutional level and within the global education community.

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In loving memory of
Laura S. Kinsey and Dorothy C. Thompson—

Two lives that made a difference. You taught me how to love unconditionally, keep perspective, and enjoy life.

Jim Black
EDITOR

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Preface

The *Strategic Enrollment Management Revolution* describes a transformational period in higher education. Demographic shifts, the emergence of the Information Age, technology advances at a pace unlike any the human race has experienced heretofore, increased reliance on enrollment-generated revenue, and a highly competitive recruitment environment are among the market forces that have led to enrollment management as a concept and a profession. The power of market forces on the academy is undeniable and unavoidable. Institutions that ignore the warning signs do so at their peril.

This particular revolution is intriguing because it has occurred within a relatively short timespan in an organization that historically has embraced change with glacier-like speed. The radical paradigm shift now upon us requires new organizational models, new strategies, new resources, new tools, and, most importantly, new ways of thinking, none of which comes easily at most colleges and universities. Enrollment management has thrived only because it has added value to the core mission of higher education: the academic enterprise. More specifically, enrollment management is viewed by many as a solution to some institutional imperative (e.g., revenue production, institutional reputation, student diversity, student quality, student retention).

The Revolution by Stages

Like many fledgling professions, enrollment management has grown in stages. During its *infancy stage*, a few innovators began to experiment with new concepts, most taken from the business world. Individuals such as Jack Maguire, Tom Huddleston, and William Elliott applied aggressive marketing approaches first to student recruitment and later to financial aid packaging. Organizationally, most enrollment management structures included admissions and financial aid operations. The chief enrollment management officer typically was either a former director of admissions who knew little about financial aid or a faculty member aspiring to become an administrator. With little expertise in the field and a dearth of research and literature on the subject, enrollment management as a profession struggled through the 1970s and the first half of the 1980s.

In the late 1980s, however, enrollment management entered a *growth stage.* The diminishing number of traditional students and the continued increases in the numbers of adults—particularly women—attending college forced many administrators to rethink their market position. Competition among institutions became fierce, and a small but symbolic number of colleges closed their doors. Enrollment management came to be perceived as a quick fix, or panacea, for all enrollment woes. Unfortunately, many enrollment management strategies emerged from a sense of panic rather than a long-term strategic vision. Though often ill-conceived, enrollment management models blossomed at campuses throughout the United States. Organizational structures expanded to include other operational areas, such as registration, orientation, academic support, and student retention. Correspondingly, the need for a chief enrollment manager with a broad skill set became increasingly great. The ideal enrollment manager proved to be a person who understood data, technology, marketing concepts, recruitment strategies, student retention, human resource management, budgeting, and the academic culture. The enrollment manager needed to be a visionary whose feet were firmly planted in day-to-day operations. Institutions struggled to find enrollment warriors equipped with such an arsenal of talents. Demand far outstripped supply.

This book is being written at a defining moment in the evolution of the enrollment management profession. As its *growth stage* comes to an end, the profession finds itself entering the *maturity stage.* Signs of a profession in the maturity stage include a common lexicon, practice influenced by research, professional development opportunities and a body of literature that convey best practices, a significant number of experts in the field, organizations that support the profession and provide principles of ethical conduct, and valued contributions by the field to the institutions and various constituents they serve.

Enrollment management is becoming increasingly complex and unpredictable. As a result, it is essential for the successful enrollment manager to be grounded in the theory that undergirds the movement of enrollment management from nominal to strategic. In The *Strategic Enrollment Management Revolution*, the authors attempt to share the fundamental elements of a mature SEM operation. We hope the book will be a useful tool for enrollment managers as well as those who desire to learn about this revolution sweeping campuses throughout the United States and the world.

Organization of the Book

Part I describes the context within which enrollment management evolved and currently exists. Chapter One provides a historical account of the enrollment management profession from its origin to the present. The milestones outlined in this chapter serve as guideposts for a new enrollment management effort as well as a reminder to the seasoned SEM organization of how history often repeats itself. Chapter Two describes environmental factors that influence student demand for higher education alongside the suppliers thereof. On the demand side, demographic trends and participation rates provide an invaluable reference point for the work of enrollment managers. Among other things, the supply side includes a review of emerging nontraditional higher education providers. Chapter Three examines the conceptual and theoretical underpinnings of enrollment management. Theories and concepts explored in this chapter include resource dependency theory, systems theory, revenue theory and revenue maximization, students as institutional image, enrollment management as courtship, and enrollment management in the academic enterprise.

In **Part II,** the focus shifts from theory to practice. Chapter Four demonstrates how to use the theoretical underpinnings described in Part One to create a plan of action. Readers will learn how to assess the institutional environment, identify program goals, and define SEM target markets. Chapter Five addresses issues related to, the process of, and reactions to change. Various models of change management are described. Chapter Six applies many of the change concepts discussed in Chapter Five to the implementation of change efforts in a SEM context. Specific examples of creating a vision, building a business case, leading change efforts, and ensuring buy-in and broad-based involvement are combined with practical approaches to project design and implementation.

Part III examines the architectural design of a SEM enterprise: organizational structure, a strategic plan, resource allocations, and infrastructure. Chapter Seven provides an overview of common enrollment organizational models along with the advantages and disadvantages of each. Factors that should influence organizational design are described in detail. For illustration purposes, sample organizational models are included. Chapter Eight defines the components of a SEM plan and outlines the steps involved in developing one.

For institutions engaging in the planning process, this chapter offers a planning template. Planning is important, but doing so without adequate resources results in frustration and episodic implementation. SEM is resource hungry, but no institution has unlimited funds, time, or space. Chapter Nine conveys strategies for garnering the resources (time, space, people, and money) necessary to successfully implement a SEM plan. Finally, Chapter Ten takes an in-depth look at managing the one resource no enrollment management organization can afford to neglect: its people. The author describes trends that affect workers and thus, have an impact on our ability to achieve desired results. The author further explains how to cultivate intellectual capital through the creation of a learning organization and effective knowledge management.

Part IV delves into the world of technology—a mainstay of any SEM operation. Chapter Eleven describes the different options to consider when selecting and implementing a student information system. Chapter Twelve explores uses of technology to access, analyze, and present information to key decision makers. And Chapter Thirteen describes elements of the *e-revolution*: establishing a presence, interactivity, mass customization, the unbundling of services and programs, and a mix of competition and cooperation. With these elements as a backdrop, the author shares opportunities for one-to-one marketing, recruitment, retention, and service using technology.

Acknowledgements

The contributing authors to The *Strategic Enrollment Management Revolution* have sacrificed their time and shared their expertise so that you and other enrollment professionals may learn from their experience. For their commitment to the enrollment management profession, they are deserving of all our thanks. Special thanks also are due the members of the American Association of Collegiate Registrars and Admissions Officers staff who have worked diligently to ensure the high quality and broad distribution of this book.

About the Authors

Jim Black has worked in education for 19 years, first as a high school teacher and coach and later as a college administrator. He is currently the Associate Provost for Enrollment Services at the University of North Carolina at Greensboro. Black is the founder of the National Conference on Student Retention in Small Colleges and co-founder of the National Small College Admissions Conference and the National Small College Enrollment Conference. He also is the director of AACRAO and NASPA's Strategic Enrollment Management Conference. Black has delivered keynote addresses and conducted training workshops for business leaders and educators nationwide. His areas of expertise include leadership, organizational change, customer service, strategic enrollment management, marketing, recruitment, and retention. In 1994, Black received The Best Presentation award at the American Association of Collegiate Registrars and Admissions Officers (AACRAO) annual meeting.

Black has served as a consultant for two national organizations and more than 25 two- and four-year colleges and universities. In 1999, he was selected as one of only 22 IBM Best Practices Partners in the world. He has published a feature article in *College & University*, "Creating Customer Delight"; a monograph entitled "Navigating Change in the New Millenium: Strategies for Enrollment Leaders"; and numerous articles in AACRAO's *Data Dispenser*. He has been interviewed by national publications such as *The Chronicle of Higher Education, Converge Magazine, The Enrollment Management Report,* and *The Lawlor Review.*

Stanley E. Henderson has been Associate Vice President for Enrollment Management at the University of Cincinnati since 1995. In this position, he is the senior enrollment officer responsible for admissions, financial aid, registrar, educational services, disability services, and career development, as well as the Strategic Enrollment Management Initiative. He is the lead user representative in the development and construction of a 100,000 square foot Center for Enrollment Services building, including a one-stop service center.

Prior to his work at Cincinnati, he was Director of Enrollment Management and Admissions at Western Michigan University for 11 years and Director of Admissions at Wichita State University for 14 years. A Phi Beta Kappa graduate of Michigan State University in Political Science, Henderson holds a masters degree in government from Cornell University and has done advanced graduate work in higher education administration at the University of Illinois.

Henderson is a past president of the American Association of Collegiate Registrars and Admissions Officers (AACRAO) and served on the association's Board of Directors for six years. While a member of the board, he was a principal developer of the AACRAO national SEM conference, now in its eleventh year. He is co-editor and contributor of *The Admissions Profession*. Henderson has been a frequent national speaker and consultant for a wide variety of institutions and for the College Entrance Examination Center of Taiwan and the Texas Higher Education Coordinating Commission.

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Don Hossler is Professor of Educational Leadership and Policy Studies and is currently Vice Chancellor for Enrollment Services at Indiana University, Bloomington. He has served as Executive Associate Dean for the School of Education and Chair of the Department of Educational Leadership and Policy Studies. His areas of specialization include college choice, student financial aid policy, enrollment management, and higher education finance. Hossler earned his baccalaureate and graduated with honors from California Lutheran University in 1971. In 1979, he earned a Ph.D.in Higher Education from the Claremont Graduate School, where he worked with noted economist of higher education Dr. Howard Bowen. He served as Associate Dean for Academic and Student Affairs at California Lutheran University from 1972 until 1981. He taught at Loyola University of Chicago from 1981 until 1985, when he joined the faculty at Indiana University.

Hossler has consulted with more than 30 colleges, universities, and related education organizations. He has presented more than 90 scholarly papers and invited lectures in the United States, Canada, China, and Russia on the topics of student college choice, student financial aid policy and higher education finance. He has received several grants, completed a national study of state funding policies for state systems of higher education, and conducted research on change and reform in higher education in Russia. He is the author or co-author of eight books and monographs and more than forty articles and book chapters. He has received national awards from the American College Personnel Association and the National Association of Student Personnel Administrators for his teaching, research, and scholarship.

Thomas Huddleston Jr. earned bachelor's and master's degrees from Texas A&M University Commerce and a doctorate from Oklahoma State University with a concentration in higher education and mass communication. He has held numerous leadership positions in higher education and industry.

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Kalsbeek is a frequent speaker on issues related to strategic enrollment management and marketing, net revenue planning, assessment, and learning organizations. He has been a plenary speaker or presenter at nine of AACRAO's ten Strategic Enrollment Management conferences, as well as NASPA, AAHE, AIR, ACT, AACSB, and AMA conferences. He currently serves on the Editorial Board of the *Journal of College Student Retention* and previously served as Feature Editor for *About Campus* magazine. He has been a consultant to more than 25 colleges, universities, and associations on issues related to strategic enrollment management.

James Maraviglia has been actively involved in admissions and recruitment for the past 25 years. He has been Executive Director of Admissions and Recruitment at Cal Poly since 1993, having joined the institution as Director of Admissions in 1991. Previously, Maraviglia was Director of Admissions and High School-College Relations at Central Washington University. He also worked in admissions at Triton Community College, Chicago State University; he started his career in admissions as a student intern at Elmhurst College. He has won a series of professional association awards for initiatives his unit has brought to the profession. Maraviglia also has written numerous papers on enrollment planning, admissions, recruitment, and re-engineering the workplace through technology. He now serves as a professional consultant to a number of institutions interested in implementing technology solutions for their enrollment initiatives.

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Thomas G. Mortenson is Senior Scholar at the Center for the Study of Opportunity in Higher Education in Washington, DC, and an independent higher education policy analyst. Mortenson's policy research focuses on opportunities for postsecondary education and training and the ways in which public policy fosters or impedes access to that opportunity. He has special concern for populations that are underrepresented in higher education. His studies have addressed academic and financial preparation for college, access, choice, persistence, attainment, and labor force entry of college graduates. He is particularly interested in public and private finance of higher education opportunity and the enrollment consequences of the cost shift from taxpayers to students that has been underway for the last 20 years. He has been employed in policy research and budget analysis roles for the University of Minnesota, the Illinois Board of Higher Education, the Illinois State Scholarship Commission, and the American College Testing Program.

Currently, Mortenson is editor and publisher of *Postsecondary Education OPPORTUNITY*, a monthly research letter devoted to analysis and reporting on the demographics, sociology, history, politics, and economics of education opportunity after high school. He provides consulting services on higher education opportunity policy to state and national organizations and makes presentations on opportunity throughout the country.

Rita R. Owens has worked in higher education administration for the past 25 years. She gained her expertise in various enrollment management positions at Virginia Polytechnic Institute and State University, Babson College, and Boston College and as Customer Services Manager for Diversified Management International, Inc. For the past five years, she has been the Project Leader for Service Strategies at Boston College. In that role, she led the transformation of Boston College's student services office, creating the Office of Student Services. Currently, she serves as the Associate Vice President for Student Information Systems. Owens is a frequent presenter at AACRAO, EDUCAUSE, and the IBM Forum on Student Services, and she is the Boston College representative for the IBM Best Practice Partners in Student Services. She has published several articles on her work, as well as appearing on the SCUP/IBM/PBS broadcast, "Planning for Student Services, Best Practices for the 21st Century." Rita received a B.A. from Westfield State College and an M.A. from Virginia Polytechnic Institute and State University.

Ange Peterson, Director of Admission and Retention at Pittsburg State University since 1992, has been an advocate for the implementation of strategic enrollment management philosophy on her campus. Serving on and chairing various university committees presented opportunities for her to continue the rich tradition of enrollment management first implemented on the Pittsburg State University campus in 1985. Her background is diverse, including teaching, coaching, and administration at the secondary level. Peterson specialized in curriculum development and co-authored a K-12 curriculum in her instructional area. Moving into higher education as a part-time lecturer and specifically into enrollment management through the admissions arena has provided her an education second to none.

Peterson has chaired and served on various university task forces and planning committees. She has presented at state and national AACRAO, ACT, and KASFA meetings, serves on the Kansas Board of Regents Qualified Admission committee, and has held offices in KACRAO, ACT, and AACRAO. She considers her greatest professional achievement to be "maintaining the best staff possible and preparing those staff members for a learning experience that will allow them to fly!" Peterson has been interviewed for various enrollment and admission articles in national journals as a result of the many proactive initiatives and processes she has helped implement at Pittsburg State University.

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PART I

The Contextual Framework for Strategic Enrollment Management

Strategic enrollment management, by its very nature, is complex and at times seemingly elusive. Embracing SEM is akin to Mowgli (the jungle boy in the Disney production of Rudyard Kipling's classic, *The Jungle Book*) grabbing the tail of Shere Khan (the evil tiger): Once he had it, he was not quite sure what to do with it. To hold on was dangerous, but to let go was certain death. To survive, Mowgli had to understand the laws of the jungle, the nature of the tiger (specifically, its fear of fire), and the landscape around him.

To be a successful enrollment manager, you, too, must understand the environmental factors that influence your enrollments. The laws of the jungle (the marketplace), the nature of the tiger (your competitors), and the landscape (e.g., the state of the economy, demographic trends, participation rates, workforce demands) all influence institutional enrollments. To a large extent, your ability to learn from enrollment history, scan the environment, anticipate changes, and grapple with the theoretical underpinnings of the profession will determine your success.

The chapters in Part I provide a framework for understanding the nature of SEM. From this understanding emerges the foundation upon which you can infuse **strategic thinking** into enrollment management. Void of strategic thinking, your enrollment management operation—at best—will be proficient at reacting. Perpetual crisis management will be the order of the day, every day.

Step "out of the box" and consider how the context of enrollment management described in these chapters applies to your institution. How can you be a prophet in your own land? How can you use these contextual insights to lead your institution? How can you position your institution to achieve optimal enrollments, now and for years to come?

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CHAPTERS 1, 2, AND 3

1

On the Brink of a Profession:

A History of Enrollment Management in Higher Education

Stanley E. Henderson

Introduction

What is enrollment management? Many in higher education refer to themselves as "enrollment managers," but is it a term the general public understands? Is it a concept that faculty and other administrators grasp? Is it even a structure that staff in so-called "enrollment management offices" accept?

In some respects, enrollment management could be described as well established—even essential—in higher education. Michael Dolence, one of the most sought-after presenters on strategic enrollment management, says, "An institution's academic program is inexorably codependent on enrollment management" (1993). One of the leading researcher-practitioners in the field of enrollment management, Don Hossler, of Indiana University, says that enrollment management is "reaching its adolescence as an industry." He even says in a recent interview that enrollment management has the trappings of an emerging profession (1999).

To appreciate enrollment management, it is important to examine its roots and to consider how it has developed to this point of adolescence, to "the brink of a profession."

Before the Beginning

American higher education has been involved in the business of managing enrollments since its earliest days. The history of higher education is, in part, a story of enrollment feast and famine. The quest for enrollment numbers has driven the creation or elimination of institutional types and institutional admissions policies in every century. However, higher education is equally rooted in the development of standards that ensure the right mix of students. "In every period of higher education history, academic institutions—whether struggling colonial colleges before the Revolution, denominational institutions in early nationhood, or the emerging universities of the twentieth century—have wrestled with the twin prongs of the admissions dilemma: the quantity and quality of students" (Henderson in Swann and Henderson, 1998).

In the 1960s, Michigan State University (MSU) was reinventing its "cow college" image with a strategically targeted recruitment program aimed at National Merit Scholars. By investing heavily in the recruitment and sponsorship of these students, MSU could boast in the latter 1960s of having more National Merit Scholars than any other institution in the country. Recruitment in college admissions in those days of burgeoning enrollments had a decidedly smarmy cast, at least in the minds of faculty and many admissions professionals. It was inappropriate, if not unethical, in those earliest days of federal financial aid, to give scholarship dollars to students based only on "merit" as opposed to need. Critics of the National Merit strategy denigrated the achievement of enrolling scholars because it was the result of financial inducement, of "buying" students rather than attracting them on the basis of the university's academic programs.

But a clear understanding of the MSU National Merit strategy shows it was rooted in more than just buying scholars: "They recruit best who serve best" was the training mantra MSU admissions officers heard, recited, and lived for a decade. Abandoning the traditional Baby Boomer era role of admissions gatekeeper, MSU became the first large public university to aggressively recruit National Merit Scholars, with services delivered "firstest with the mostest." If it took flying to National Merit corporate headquarters in Evanston to pick up the semi-finalist list on the day of its release to the press, then that was the price of being the first institution to congratulate the honorees.

In the days before print merges replaced "Dear Student" letters, it was a matter of course to involve all of the support staff in MSU's Office of Admissions and Scholarships in preparing personalized letters to the semi-finalists. Information sessions on campus and in cities throughout the country, newsletters, and personalized recruitment—all were utilized to tell prospective Merit Scholars about how MSU could provide educational service and opportunity to meet their needs and goals.

However, more than mere recruitment activities were involved in Michigan State's strategy. The university used *structure* to enhance the service to new students. Financial aid and scholarship programs for new students were handled out of a combined Office of Admissions and Scholarships. In collaboration with the Counseling and Testing Office, an orientation program was created. This integrated structure ensured consistency of service to students throughout the recruitment process and provided a bridge to enrollment.

In short order, the strategy began to attract a different kind of student to East Lansing. Five years after MSU began its National Merit sponsorship, a high-ranking University of Michigan administrator asked what had happened to the Ann Arbor campus's traditional lock on Michigan high school valedictorians and salutatorians.

In that era of proliferating Baby Boomer applications, many admissions officers' chief responsibility was to discourage or deny. Michigan State was perhaps the first public university to target and recruit a specific population in order to change the mix of students on campus. As a strategy, it was based on providing service to parents and students without benefit of being informed by market research or techniques. It actually proved to be one of the earliest precursors of what we now refer to as *enrollment management.*

In the Beginning: Essence and Roots

By the early 1970s, the higher education community began to realize that the Baby Boom was going bust, and crisis loomed on the horizon—particularly for private colleges, with their higher costs. One college faced this crisis and chose to do something purposeful in response. In the late 1960s and early 1970s, Boston College (BC) was facing increasing competition as it fought for freshmen enrollments even as it became clear that its retention rates were declining. Ensuing enrollment shortfalls brought serious deficits that forced sharp tuition increases culminating in a student strike. At one point, the institution seriously considered whether it would remain private or go public. BC had an incredible need to manage its future. In the midst of this crisis, a young, tenure-track, assistant professor of physics named John Maguire became BC's new dean of admissions (Maguire, 1999, and Scannell, 1999).

Shortly after Maguire became dean, a new executive vice president, Frank Campanella, began his tenure at BC. Along with Maguire, Campanella became a major player in the development of enrollment management. In the course of meeting the deficit problems and managing academic planning, Campanella came to believe that enrollment needed to be seen from a broader perspective than that of admissions alone: There would need to be administrative oversight; attention to faculty loads; sources of tuition generation. Campanella's background in finance (he had earned his doctorate from the Harvard University Business School) gave him the insight to see the relationships between net tuition revenue and what faculty were teaching, between market demands and academic planning. Managing enrollments was a way of managing the business of higher education (Maguire, 1999, and Scannell, 1999). It might have made perfect sense in a business environment, but at BC it resulted in "the most comprehensive long-range academic and fiscal planning in [the institution's] 113-year history" (Maguire, 1976). For higher education, it represented a paradigm shift.

In 1974, Campanella told Maguire that he wanted to restructure the way in which BC handled enrollment planning and call it "enrollment management." In spite of Maguire's concern that the dean of the School of Management would object (Maguire, 1999), Campanella, on November 11, wrote a memo "to introduce the idea of 'enrollment management'" (Campanella, 1974). He envisioned enrollment management as directing admissions resources, minimizing student attrition, predicting market demands, and developing financial aid strategies. "I am convinced," he wrote, "that enrollment management will shortly be the 'name of the game.' I am equally convinced that it will require a coordinated and integrated effort of the highest order" (1974).

Maguire emphasizes that he and Campanella did not invent the name of enrollment management but rather coined the term (Maguire, 1999). Nevertheless, Maguire's work at BC would invent the essence of enrollment management. Reporting to BC alumni in 1976, Maguire became the first to use the term in a public document as a concept for influencing an institution's enrollment health. "Simply stated," he wrote, "enrollment management is a process that brings together often disparate functions having to do with recruiting, funding, tracking, retaining, and replacing students as they move toward, within, and away from the university." It was, he said, a "grand design." Years later he would say that "enrollment management was developed to bring about a synergy among functions such as admissions, financial aid, and retention, which too often were viewed as independent and working at cross purposes" (Britz, 1998). It would become one of the most significant administrative movements in American higher education.

In his alumni article, Maguire (1976) amplified the original view of enrollment management. He identified five goals:

Marketing Admissions: To guard against the ravages of a declining national pool of high school seniors, Boston College would have to make use of an admissions marketing program. Maguire was quick to explain that he did not mean "hucksterism or slick sales techniques" but rather "a systematic effort to merge institutional strengths with consumer (student) interests." The academic long-range planning done at BC allowed the marketing program of enrollment management to provide effective communication to students in the marketplace.

Research and Information Flow: Institutional research and information flow would have to be improved and coordinated. BC found students moving through the institution in increasingly complex ways, e.g., transfers from other institutions, stop-outs, dropouts, exchange programs. Understanding and controlling these new degree paths required reliable information systems.

Market Prediction and Institutional Response: Even at an institution such as BC, with its strong commitment to "the enduring values of a liberal arts education," there remained a need to monitor job market trends and match them with student demand through counseling, departmental quotas, and reallocation of resources.

Financial Aid Strategy: As costs escalated, the strategic use of financial aid would become increasingly necessary to "attract and retain an appropriate socioeconomic mix of students." The institution looked at mathematical models to identify financial aid options to meet the complexity of packaging aid fairly while meeting institutional enrollment objectives.

Retention-Transfer: To minimize attrition, BC would have to develop retention programs. Satisfaction surveys would be necessary as part of the institutional research program to monitor in which areas BC was succeeding and failing. Enrolling transfer students necessitated institutional policies on course registration and priorities for "native" students while ensuring seamless transitions for transfers.

Maguire readily acknowledges that many institutions in the 1970s were implementing similar goals. However, Boston College was doing so in a unique way (Britz, 1998). Establishing a structure wherein the dean of enrollment management (Maguire), with the directors of admission (Jim Scannell), research (Bob Lay), and financial aid (Paul Combe), as well as the registrar (Louise Lonabocker) reported to him afforded a new approach to monitoring and influencing enrollment. The enrollment management team "spent a lot of time trying to figure out how these functions interacted. And instead of viewing them as four separate functions, we realized we were also managing six different interactions, for a total of ten. This realization led to a very careful management of these important interactions, such as admissions/financial aid and marketing/retention, and ultimately to the success of enrollment management at Boston College." It was the combination of Maguire's three most important components of an enrollment management system: outstanding people using the right information in the right organizational structure (1999).

To understand the roots of enrollment management, it is important to emphasize that a significant part of Maguire's enrollment management concept was its relationship to marketing. While Maguire saw the goals of enrollment management as "fluid and overlapping," he also saw them as all being related to marketing. "Indeed," he wrote, "in a restricted sense some would consider enrollment management to be a euphemism for marketing" (Maguire, 1976). The heritage of marketing is unmistakable in the work of another early pioneer in the field of enrollment management.

If John Maguire and Frank Campanella at Boston College are the fathers of enrollment management, then Tom Huddleston is its godfather. At about the time enrollment management was emerging in Boston, Huddleston, then dean of admissions and financial aid at Bradley University, was applying formal market research with considerable success in Peoria (1976, 1977, 1978).

Because Huddleston saw marketing as a "comprehensive rather than singular approach to conception and implementation" (1980), he saw efforts to bring marketing to an institution through the admissions office as shortsighted. The admissions office could not undertake the full institutional approach that marketing required. By 1980, he was suggesting that marketing should drive new organizational structures: "Simply stated, there needs to exist an administrative component that formally examines the needs of internal and external student publics and considers the most appropriate organizational structures to further define and support their needs. This group of units should become the foundation for institutional marketing efforts" (1980).

Following a College Board meeting in New Orleans, Huddleston spent three days at the library of Spring Hill College writing about the comprehensive nature of marketing in a higher education institution and sketching out the components of a new organization to reflect that comprehensiveness (1999). Included in his ideal marketing structure were the areas of admissions, financial aid, orientation, academic advisement, retention, cooperative education, and career development. These offices "should enhance a student's use of the varied educational opportunities and provide the nucleus for an initial entry into institutional marketing" (1980). Huddleston saw the benefits of marketing institution-wide such that "In essence, colleges should reconsider the traditional organizational structure being used to respond to the interests and needs of their prospective and current clients. The integration of efforts of certain relevant areas will be greater than the sum of the individualized activities" (1980). In identifying the ideal combination of areas, Huddleston also defined what many would call the "classic combination" of enrollment management units for the most effective impact.

Although he thought admissions too limited to provide the fully integrated marketing institutions required, Huddleston nevertheless saw the admissions office as providing the leadership for this reorganization. Directors of admissions would be the best candidates "to lead an institution's marketing efforts because of their experience, the benefits of which will assist in the development and retention of enrollment" (1980). Huddleston also saw the value of the academic side of the enterprise. His provost was receptive to the new organizational structure, in part because of Huddleston's successful track record as dean of admissions and financial aid at Bradley, and the chief academic officer was interested in the further progress the new division could invite (1999).

Huddleston saw partnerships with the academic areas of the institution as essential. Successful marketing had to address academic quality and reputation. Enhancing and communicating that portion of the institutional image would be more effective if it happened in collaboration with faculty and academic administrators. This vision had led at Bradley to the establishment of the first office of retention (1999). For the first time, specific staff were made accountable for retention. Previously, no one had responsibility, so no one took charge.

Huddleston has never used the term "enrollment management" to describe his work. He believes that the term suggests that only enrollments can be managed, a concept he rejects. In fact, he now heads a Division of Student Development and Enrollment Services that retains the classical structure he outlined in 1980, expanded to include other areas of student affairs. In its original configuration, Huddleston's organization was called the "Division of Student Life Planning" (an unfortunate name, it turned out; colleagues asked if his unit was concerned with life and death or if it was associated with Planned Parenthood) (1999).

The Structural Strategists

Huddleston focused on marketing as the defining link between the structure and practice of enrollment management in the late 1970s and early 1980s; in the first book devoted to the subject, multiple strategies were emphasized. Writing in 1982 for the American Association of State Colleges and Universities (AASCU), Kemerer, Baldridge, and Green cited two major problems facing American higher education: declining enrollments and economic difficulties. The last of the Baby Boomers were about to enroll, and the "Reagan Revolution" had begun with a severe economic downturn. To meet these challenges, these earliest prophets of enrollment management counseled colleges "to take an active, assertive stance, to make a realistic assessment of barriers, but refuse to let the barriers halt progress." The institutions that would succeed in the 1980s would need to "develop a set of concrete, practical steps specifically designed to enhance enrollment management" and, in doing so, "adopt a strategic planning approach." Finally, it would be necessary to "maintain a focus on fundamental institutional vitality and quality, not on 'quick-fix' solutions."

Kemerer, Baldridge, and Green saw enrollment management as both a concept and a procedure. Conceptually, it provided institutions with the steady supply of students necessary to maintain institutional vitality. Procedurally, it was "a set of activities to help institutions interact more successfully with their potential students." Enrollment management was perceived as including eight "interdependent" activities: "clarification of institutional mission, program development, marketing, recruiting, admissions, financial aid, orientation, and retention." The list implied this was to be a "holistic approach" with "clearly linked" components. Enrollment management was for the long term: "Enrollment management is the antithesis of the quick fix and involves much more than increased attention and resources for recruitment activities" (1982).

Kemerer, Baldridge, and Green laid out enrollment management in practical ways. If the final objective was institutional vitality, then this view of enrollment management represented a road map of self-help stops. "Effective enrollment management," they wrote, "begins at home with concerned and knowledgeable administrators and faculty who realize that they possess the capacity to respond creatively to environmental pressures in the interest of long-term institutional health" (1982). The increasingly specialized nature of offices dealing with enrollments had created a kind of "silo culture" in which decisions in one area were made without any assessment of what would happen in another area. Senior administrators would need to concentrate on integration of functions and on communication to break down the silos.

Kemerer, Baldridge, and Green did not introduce the concept of strategic planning, but it was in that context that they concentrated on what they called "jugular vein decisions": those of major import but that could be handled locally by institutional officers (e.g., budget changes, selecting key faculty and administrators, shaping relationships to the outside environment, influencing key policies, building more effective organizational systems). These jugular vein decisions would pave the way for the development of multiple strategies of "the day-to-day, middle-range type." They shunned "the long-range grand design because the world of higher education management doesn't operate that way," as well as "the lure of quick-fix solutions like those so often portrayed in marketing literature" (1982).

Kemerer, Baldridge, and Green's greatest contribution to the development of enrollment management may have been their presentation of a continuum of structures, each expressing a progressively more complex system of enrollment management. Drawing on the work of Campbell (1980), Fram (1975), Kreutner and Godfrey (1980, and the only bibliographic entry to use the words "enrollment management" in Kemerer, Baldridge, and Green), and Caren and Kemerer (1979), they outlined what became the quintessential enrollment management structural forms. Every major researcher and practitioner to follow would refer to and refine the Kemerer, Baldridge, and Green architecture. Given their emphasis on middle-ware strategies and structural continuums, Kemerer, Baldridge, and Green might be called structural strategists. They responded to the need for solutions to unnerving environmental problems confronting higher education institutions in the early 1980s.

Research Informing Practice

It is likely that Don Hossler has been called enrollment management's "chief guru" more often than anyone else. Perhaps because he has long been identified as the field's leading academician, much national note was taken of his decision to become a practitioner as vice chancellor for enrollment at Indiana University's Bloomington campus. Whispered variations on the theme of "Now we'll see how well theory translates to practice!" were ubiquitous. What many did not know was that for ten years, Hossler had been a practicing professional at California Lutheran College, where he worked as a retention officer in orientation prior to becoming an academician. Thus, his first interest was in practice (1999).

While a doctoral student of Howard Bowen, Hossler began to focus his research on college choice. He tells of seeing a *Time* magazine photo of two students in caps and gowns digging ditches. The cover story was about college graduates unable to find jobs. Hossler found himself wondering how the promise of employment after graduation could impact the decision to attend college. Thus was born his life's work to inform practice with research (1999).

Hossler describes his first book as "a modest crusade" to show how research could improve practice, as well as affirming that practice can shape research. The College Board published the book after Jossey-Bass declined to. (The management of Jossey-Bass told Hossler that people did not like to buy books written by unknown authors, and, besides, "Admissions people hardly read at all.") Jossey-Bass's loss proved the College Board's gain. Besides one or two books pitched directly to high school counselors, Hossler's 1984 work was one of the most successful books ever published by the College Board. Hossler suggests modestly that it was a matter of "being on the right topic at the right time" (1999).

Hossler expanded the components of enrollment management beyond the Boston College model. Student marketing and recruitment, along with pricing and financial aid, were essential elements of Hossler's enrollment management model. In addition, the enrollment management area would need to exert strong influence on academic and career counseling, academic assistance programs, institutional research, orientation, retention programs, and student services (e.g., athletics, activities, career planning, counseling, residence life). "It is not simply an administrative process. Enrollment management involves the entire campus" (1986).

More important, Hossler was turning the field toward a research base. The competition and the smaller applicant pools intensified the imperative for those in enrollment management to understand higher education demand and college choice, pricing, fit between student and institution, retention, and outcomes. Hossler was challenging enrollment management officers to recognize the "need for a new level of professionalism vis a vis a sound knowledge base and the need for a strong research and planning effort for enrollment managers" (1986).

Hossler was describing a new kind of enrollment management professional—more than "just" an admissions officer (although an admissions officer could bring a solid knowledge of recruitment and marketing). In fact, many enrollment managers in this period would come from the ranks of the faculty. An associate provost position with responsibility for enrollment offices would be a good career move for the faculty member who wanted to move up the academic administration ladder. Research did not necessarily come easily to the admissions officer or the student affairs professional; these were "people people." Their comfort level with interpersonal interactions had led them to their positions in the first place. Had they been comfortable with the more solitary life of the academic, they might rather have chosen to be faculty members.

Who should function as the enrollment manager? Hossler was specific:

> *It is evident that enrollment managers should have public relations skills in addition to good administrative skills. These, however, will not be sufficient. Effective enrollment managers will also have to be comfortable with data analysis and knowledgeable about nonprofit marketing. They will also need to be comfortable with institutional research techniques and methodologies. Enrollment managers need not be able to actually conduct the research, but they should know the right questions to ask, and they should be able to understand the findings that emerge from their questions (1986).*

The crucial role of research in enrollment management would be reemphasized in Hossler's second book in 1986, again supported by the College Board. Here he suggested that the groundwork for enrollment management had not come from organizational theory but from "convergence of (1) institutional concerns regarding student enrollments, (2) research on student college choice, (3) student-institution fit studies, (4) retention research, and (5) college impact research." The research base goes to the understanding of the entire student experience (1986).

In fact, Hossler sees enrollment management as providing a lens on the total student experience. Each of the parts of enrollment management—admissions, financial aid, retention offices, orientation, etc.—sees students from a particular vantage point. Decisions in these areas are made in different parts of the campus, in different divisions, with different administrators. It is little wonder that the resulting views of students conflict! Applying the enrollment management lens enables the institution to see its students from a wider, more comprehensive, angle. It also helps the institution see itself through the eyes of students, thus providing a student-centered view.

Hossler continually emphasized the research nature of enrollment management. Whereas the common characteristics of early efforts in the field included continual analysis of institutional image in the student marketplace; attention to the connections between recruitment and financial aid policies; an early willingness to adopt marketing principles in recruitment activities; and recognition of the importance of gathering and utilizing information for institutional practices and policies, his enrollment management paradigm proved richer. A combination of the evolution of admissions and financial aid offices, as well as that of other student services offices; the emergence of marketing in higher education; and research on student college choice and student persistence: all of this is enrollment management. Enrollment management is a complex and holistic approach to analyzing and influencing college enrollments (1986).

By 1990 (when a different Jossey-Bass management team decided that enrollment managers did read books), Hossler and Bean had refined their definition of enrollment management. It is, they said:

> *An organizational concept and a systematic set of activities designed to enable education institutions to exert more influence over their student enrollments. Organized by strategic planning and supported by institutional research, enrollment management activities concern student college choice, transition to college, student attrition and retention, and student outcomes. These processes are studied to guide institutional practices in the areas of new student recruitment and financial aid, student support services, curriculum development and other academic areas that affect enrollments, student persistence, and student outcomes from college (1990).*

Bean suggested a significant connection between strategic planning and enrollment management. Although strategic planning had been mentioned in the literature, Bean's explanation was more explicit, especially in distinguishing between long-range and strategic planning. The following details the features of both long-range and strategic planning:

Issues versus goals, vision versus objectives, open versus closed, environmental versus internal, do versus talk, process versus blueprint—the very language of strategic planning in opposition to long-range planning provides enrollment management with the flexibility and process orientation that will be a springboard to greater and more significant change. The steps of strategic planning provide a new context for enrollment management:

- Initiating and agreeing on a strategic planning process.
- Identifying organizational mandates.
- Clarifying organizational mission and values.
- Assessing the external environment: opportunities and threats.
- Assessing the internal environment: strengths and weaknesses.

- Identifying the strategic issues facing an organization.
- Formulating strategies to manage the issues.
- Establishing an effective organizational vision for the future (1990).

Strategic Enrollment Management

The embrace of strategic planning by academics such as Kemerer, Baldridge, and Green and Hossler and Bean brought a new level of order to enrollment management. The next prophet of enrollment management would himself be a strategic planner. Beginning in the late 1980s, a new voice in enrollment management came to be heard: that of Michael Dolence, then strategic planning administrator at California State University-Los Angeles. Dolence's approach to enrollment management was colored by his work in the strategic planning field. In 1993, Dolence defined strategic enrollment management as a "comprehensive process designed to help an institution achieve and maintain the optimum recruitment, retention, and graduation rates of students, where 'optimum' is defined within the academic context of the institution. As such, SEM is an institution-wide process that embraces virtually every aspect of an institution's function and culture" (1993). The emphasis on the academic context proved a significant addition to the enrollment management lexicon.

Dolence also referred to the "linking" of academic programs and SEM:

> *An institution's academic program is inexorably codependent on enrollment management. The quality of the academic program can only be developed and maintained in a stable enrollment environment, and stable enrollments are only possible through sound planning, development, and management of academic programs. The alignment of institutional academic policies with SEM goals and objectives is essential to successfully structuring the SEM process* (1993).

If the products of higher education are academic programs and degrees, then the academic policies that govern those programs and degree awards are of principal importance in SEM. In fact, Dolence believed this focus on academics to be the "heart and soul" of SEM (1999). He also stressed the need to optimize teaching and learning. His view of SEM is not just student-centered, but learner-centered.

SEM is not simply an administrative function. Creating the best learning and teaching environment is as important to the success of a strategic enrollment management program as good marketing. Achieving optimum teaching and learning environments means balancing a complex set of factors that includes academic program development, academic infrastructure development, faculty development, faculty hiring, academic policy formulation and enforcement, recruitment policies and procedures, and retention policies and procedures (1993).

Dolence's introduction of Key Performance Indicators (KPIs) to SEM also was of significance. The use of KPIs enabled an institution "to measure its position against its competition, the success of its strategies and tactics, or its relative position with respect to past performance." KPIs would be anchors for enrollment management efforts and would provide an effective way to measure the outcomes of an enrollment management program. "The KPIs anchor the SEM process in essential elements of performance" (1993).

Dolence's work at CSU-LA (1987, 1988) also created a retention classification system to identify and track students as persisters, graduates, attainers, transfers, stop-outs, dropouts, or dismissals. The SEM system uses technology to track students and estimate who is at risk on a term-by-term basis. The classification system also outlines intrusive intervention strategies, with particular emphasis on developmental programs that "focus on cross-cultural sensitivity, diversity of learning styles, cultural comfort, and effective teaching and learning environments."

Dolence's primary contribution to enrollment management may have been framing the concept for consistent implementation and evaluation. Huddleston saw enrollment management as a creature of marketing, though he realized the comprehensiveness of the organization created in the process. Hossler emphasized a research basis for informing enrollment management strategies and practices. Kemerer, Baldridge, and Green concentrated on the structure of enrollment management. Yet all agreed that the look and feel of enrollment management systems would vary greatly. Dolence, on the other hand, set forth criteria for every enrollment management system to work toward and be evaluated according to, no matter the system's "look" or "feel." The Dolence model provided a template for measuring the success of enrollment management systems while providing sufficient flexibility for institution-specific development. By suggesting a set of primary goals that all enrollment management systems would share, regardless of the unique institutional features that created and drove the systems, Dolence standardized the field while respecting its inherent variability:

- ○ Stabilize enrollments (stop declining enrollment, control growth, and smooth out fluctuations).
- ○ Link academic programs and SEM (align the principles of SEM with those of the academic department).
- ○ Stabilize finances (eliminate deficits, pay off debts, and reinvest strategically).
- ○ Optimize resources (contain growth in the number of employees and redirect and refocus employees).
- ○ Improve services (shorten response time, increase satisfaction, and reduce paperwork).
- ○ Improve quality (eliminate errors and increase student quality ratings).
- ○ Improve access to information (put information systems online).
- ○ Reduce vulnerability to environmental forces (mitigate the negative impact of local and regional events and expand the pool of qualified prospects).
- ○ Evaluate strategies and tactics (track what works, and change what doesn't) (1993).

Just as he set forth a set of primary goals for enrollment management, Dolence also identified a standard set of Critical Success Factors:

Leadership: No enrollment management system or organization can be fully successful without the full understanding and buy-in of the leadership of the institution.

Strategic Planning: SEM is a form of strategic planning and must operate within planning guidelines.

Comprehensiveness: Enrollment management does not operate in isolation. No one unit can successfully implement an enrollment management system that is not connected to a larger institutional one. Everyone at an institution is involved in one way or another with enrollment management.

Key Performance Indicators (KPIS): Institutions must define those numbers against which they will measure their progress and success in meeting goals.

Research: Enrollment management must rely on information flow that will inform strategies and decision making.

Academic Foundation: SEM functions in the academic context of the institution. As academics are the heart of an institution, so they are the heart of SEM.

Information Technology: A state-of-the-art information system is essential in an enrollment management system to allow for the tracking of data for decision making and for the provision of service to students.

Evaluation: Assessing the effectiveness of strategies and programs is essential for the feedback that will inform change in the enrollment management program (1993).

The Enrollment Management Continuum

Understanding enrollment management is easier if one looks at it in terms of a continuum of development, from simple to complex. Many who have described and defined enrollment management have made use of a continuum, whether of structures, systems, models, or levels. Kemerer, Baldridge, and Green's structural forms (1982) were building blocks that Hossler (1986) and Dolence (1997) would both expand upon as the field developed.

The enrollment management committee typically signaled the beginning of a campus effort to look at enrollments in a more systematic way. The committee often comprised "marching millions," including representatives of every interest group on campus, and would undertake an institutional review, usually to meet an "immediate need" (code for a crisis). The enrollment management committee could be an effective educational tool. With its broad-based membership, it provided a means of communicating with multiple constituencies. Communication, in turn, served to build campus-wide support. Because the committee was a gathering of colleagues to "consider issues," few "turf" issues were perceived as being at stake. The committee was relatively easy and inexpensive to set up and did not necessarily require senior-level approval. Of course, the committee also had the disadvantage of being cumbersome. It represented too many constituencies to have much influence over policy, and because discussion could be far-flung, the committee was slow in providing feedback. Consequently, the committee was unlikely to sustain any effort; and because its mandate often did not come from the highest levels of the institution's leadership, it lacked the clout to effect change. Most participants in such committees remember writing a report, submitting it to some officer of the institution who had attached (usually) his sponsorship to the group, and watching it collect dust. This author remembers three enrollment study committees in a five-year period; each recommended the same tuition policy change only to see it languish in administrative reporting limbo.

The next rung on the enrollment management structural ladder was the enrollment management coordinator. This new position evolved to redress some of the problems inherent in the enrollment management committee. The enrollment management coordinator usually was plucked from the mid-level administrative ranks; often, it was an admissions director, because using someone already on board would require little organizational restructuring. A coordinator was not a controller, so turf issues could be handled without administrative or executive wrangling. Often, the coordinator would be drawn from the enrollment management committee as the larger group finished its work. However, the coordinator could seldom provide formal mechanisms to link issues to senior administrators, and enrollment became a concern for mid-level administrators, not the senior institutional leadership. The success of this model rose or fell in accordance with the skills (often interpersonal) of the coordinator.

The enrollment management matrix was a logical extension of the coordinator. It elevated enrollment management to the level of the institution's senior administrators. Rather than have a mid-level director coordinate the effort, a vice president was assigned the role of bringing together units from various institutional divisions. No units were actually reassigned; the offices simply took on a dual reporting structure. For their daily work, staff continued to report to their "real" vice president; for enrollment management issues, the staff functioned as part of a matrix that crossed divisional lines. In this iteration of enrollment management, the concept became the purview of a senior administrator, and issues that had been aired only among mid-level administrators now were heard at the top. Personal persuasion was no longer as important a tool because a vice president had far more authority to issue instructions and spur action. This model, too, skirted the turf battles that would come with actual reorganization. Nevertheless, the matrix of units supervised by the vice president often suffered because the vice president lacked the time or knowledge to be effective in the area of enrollment management. And jurisdiction issues with other vice presidents were bound to surface if the matrix model extended too far and veered into *integration* rather than just *collaboration*.

The most mature of the enrollment management structures proved to be the *enrollment management division*. The divisional structure institutionalized enrollment management. With a presidential imprimatur, a vice presidential-level administrator assumed full responsibility for enrollment activities that might have been scattered among two or three other divisional areas. Turf battles were ended by the president's assignment of all activities to a single individual; that individual had direct access to the president and the capability to identify and implement coordinated strategies. However, early efforts were sometimes stymied by the difficulty of creating a new division by breaking up existing ones. Some vice presidents who lost units to the new division later became "roadblocks." Resistance among staff often resulted in lowered morale and even considerable turnover as those who could not philosophically buy in to the new structure left. Implementation of the divisional approach was seldom quick or even effective. New senior-level officers brought new expenses in the form of salary and infrastructure. Early divisional areas often had difficulty determining what should be included in the new division. With everything affecting enrollments, what would be logical divisional boundaries?

Hossler (1986) expanded on the Kemerer, Baldridge, and Green structural models as part of his systems perspective of enrollment management. He used structure to represent patterns of behavior or activities that occur over time. Function became "the way the system fulfills its purpose" and process, "the way a system changes or evolves over time." This approach could be used to develop and analyze enrollment management systems. Such a system would link "all policies and functional areas that have an impact on student enrollments." The enrollment management system would foster closer communication and cooperation among units influencing student choice and persistence. This led to a more "tightly coupled" organizational structure. Outside of an enrollment management system, administrative and departmental units would have great autonomy, making it far more difficult to agree on goals, act with consensus, and move in a united way to achieve organizational purposes.

One of Hossler's significant additions to the classification analysis of enrollment management came in his discussion of change models that could be used in establishing an enrollment management system (1986). In the accrual or evolutionary model, change is incremental. Environmental issues of concern loom on the horizon, but there is no intimation of impending disaster.

Likewise, the campus sees organizational problems as visible, important, challenging, but not of crisis proportions. Change agents working in an incremental mode must be persistent and patient while remaining open to risk-taking. Higher education, the incubator of new ideas, changes at a slow pace. "Colleges and universities may be great places to get all kinds of things started, but they are terrible places to get them implemented" (Lindquist quoted in Hossler, 1986). Some would suggest that the worst time to develop an enrollment management model would be following a significant enrollment increase. Incremental change is subversive. Henderson (1994) speaks of patiently waiting for complacency to be overcome by a perceived threat so the enrollment manager could take advantage of an opportunity to effect change before the institution slipped back into complacency.

The *rational* or *planned change model* is more purposeful—a step-by-step approach that seeks to "unfreeze" an institution from its natural inclination to maintain the status quo and instead begin the change process. Hossler suggests that this kind of change requires an "idea champion" (1986), usually a senior-level administrator with the credibility and power to combine other change agents, introduce new ideas from other institutions, and develop a problem-solving culture. The planned change model uses political strategies effectively because change in higher education typically involves conflict and compromise. The change agent may be most successful if he or she is a "new kid on the block." A new vice president announces an agenda of change, gathers friendly folk to his banners, and effects change before the honeymoon ends.

In the *transformational change model*, the institution is in crisis: A major threat requires rapid, dramatic transformation of the organization. Most often, the president will be in charge in this change mode (as opposed to the two types of change just described, wherein a mid-level administrator with senior-level support is charged with effecting change). The change agents in the transformational model need to develop buy-in from the institutional community by identifying a future that no one finds acceptable. Typically, the president bent on transformation will enlist the aid of outside experts and a crisis council drawn from the best minds, not the right titles. Higher education's first enrollment management model—that developed at Boston College in the 1970s—could be seen as the result of transformational change.

Hossler (1986) applied the change models to the Kemerer, Baldridge, and Green structures, joining both change and structure to the degree of the perceived threat to the institution. In an environment of stable enrollments, incremental change would produce an enrollment management committee. In a crisis, transformational change likely would create an enrollment management division.

Dolence (1997) later took a slightly different tack on the development of enrollment management (EM), identifying a continuum of four levels. He takes the concept back to its marketing roots in *Level 1: Nominal EM*. Dolence calls Nominal EM the "aha" stage, as in "Aha! We have a problem!" At this stage, enrollment management seems like the right thing to do, but it really is just an extension of the admissions or financial aid office. Many institutions at this level of enrollment management are fixated on some incarnation of marketing. Institutions see the concept as a hedge against enrollment problems or as a template for a quick fix that can be applied to any situation.

Level 2: Structural EM is slightly more complex. This is where Kemerer, Baldridge, and Green's enrollment management committee first emerges and then evolves into an organization with a plan. Recruitment and retention are integrated at this stage, and enrollment management focuses inward on effectiveness and efficiency. Institutions target policies and procedures to look for ways to improve service and streamline the navigation paths for students. In Dolence's view, enrollment management at this stage holds academics at arm's length.

However, that changes in *Level 3: Tactical EM*, where the paradigm begins to look outward. Strategies such as financial aid leveraging begin to appear as enrollment management drives revenue planning. At this level, enrollment management and academics are in collaboration. Enrollment management now is a process, having become comprehensive.

Finally, in *Level 4: Strategic EM*, enrollment management and its institution's environment are aligned. Decision making is integrated, and enrollment management and academics are fused into one. An enrollment management philosophy is embedded in the institution.

Dolence emphasized that no institution is likely to fall entirely in one level (except, perhaps, those in Level One). Most institutions working in an enrollment management environment would find themselves somewhere between levels 2 and 3, between structure and tactics.

Enrollment Management Popularized: Professional Development

The development of enrollment management as a topic of importance in professional associations lagged behind what was happening in the literature and in practice in the late 1970s and early 1980s. Practitioners such as Tom Huddleston were making presentations on marketing at meetings of the National Association for College Admission Counselors (NACAC, now the National Association for College Admission Counseling), the American Association for Collegiate Registrars and Admissions Counselors (AACRAO), and the College Board as early as 1975. Huddleston's work between 1977 and 1984 with the Snowmass Institute and articles in admissions journals (NACAC Journal, 1980) further exposed admissions officers and other administrators to his views on marketing and its impact on how institutions organized themselves to interact with students.

However, admissions organizations were slow to embrace enrollment management as a concept. In fact, the nature of NACAC's membership, drawn from both high school and college counseling, would keep that organization more focused on marketing, recruitment, and counseling. Its expertise and contribution has been in the pure admissions area rather than in the integrated, comprehensive area of enrollment management.

AACRAO, like NACAC, began to feature marketing sessions at its annual meetings in the mid-1970s but did not reflect what was happening in the enrollment management field until much later. Not until its April 1983 Annual Meeting did AACRAO offer its members the opportunity to develop "a comprehensive institutional enrollment plan" in a session titled "Assessing the Potential of Enrollment." The session promised a discussion of "proven techniques for assessing enrollment potential, for enrolling candidates, and for improving the retention of students" (AACRAO, 1983).

The 1983 meeting provided a sense of things to come. Jack Maguire presented on the "Role of the Admissions Officer, Registrar, and Financial Aid Administrator: My President's Perspective." The session described the Boston College enrollment management structural alignment and emphasized the importance of senior leadership's support in the enrollment management process.

The 1983 meeting also offered a session called "A New Perspective—A Point of View on the Reorganization of Admissions and Records Services." The description of an organization "under one umbrella of admissions, registrar services, testing, guidance services, career placement, student recruitment, financial aid, and systems support" conveyed the association's growing sense that enrollment was more than just a numbers game.

Nevertheless, AACRAO's interest in the concept of enrollment management faltered over the next two years. Although a session on retention was scheduled for the 1984 Annual Meeting, it was cancelled, as was another retention session scheduled for the 1986 meeting (AACRAO, 1984). The 1986 meeting did have the distinction of sponsoring the first AACRAO professional session with enrollment management in the title: "Enrollment Management prior to Admissions" considered "external factors such as legislative funding, applicant pools and meeting Equal Educational Opportunity (EEO) requirements, retention, academic continuation requirements, and selective admissions" (AACRAO, 1986).

The same meeting also validated enrollment management as a phenomenon in higher education. A session on "Enrollment Management in the Community College" noted that "enrollment management has become an integral part of the planning process at many four-year institutions," even though it was a "relatively new concept to many two-year colleges." The sense that enrollment management still was seen primarily as a marketing strategy is evident in the title of another session: "How to Develop and Generate Enrollment Management...Information for Strategic Marketing" (1986).

The College Board at this time was moving much more rapidly than either of the traditional admissions organizations into professional development activities for enrollment management professionals. First, the College Board sponsored Hossler's 1984 and 1986 books. In 1984, A. Steven Graff, Director for Admissions and Guidance Services for the College Board's Midwestern Regional Office, teamed with Hossler to organize the first conference specifically titled with the words "enrollment management." The conference brought together researchers and practitioners to discuss enrollment management in a systematic way and was held annually for four years. The Graff/Hossler partnership was a direct result of the College Board's sponsorship of Hossler's 1984 book (Hossler, 1999).

The conference papers for the 1986 Graff/Hossler program, called the Third Chicago Conference, carry the theme of "Leadership for Enrollment Management: The Next Step" and showcase a college president (George Rainsford of Lynchburg College), faculty, institutional researchers, and vice presidents for academic affairs and student development (College Board, 1986). That year, the College Board published Hossler's second book on enrollment management, the success of which (*Creating Effective Enrollment Management Systems*) brought even more attention to the concept.

In response to the growing interest in enrollment management and two successful meetings in Chicago, the College Board in 1986 added a second site for its enrollment management conference: New Orleans. This conference, chaired by Charlotte Tullos of Southern Mississippi and Ernest Beals of the Southern Regional Office, included several of the Third Chicago Conference participants while adding Vincent Tinto, Patrick Terenzini, George Keller, and William Elliot (one of the first vice presidents for enrollment management), among others. Just over 100 people attended. A second New Orleans meeting was held in 1987 along with the original Graff/Hossler program in Chicago; this time, the meeting bore the title "Enrollment Management: Challenge and Opportunity" (College Board, 1986, 1987).

Hossler remembers that at these and other conferences, participants kept asking for "the recipe": "How do you do this enrollment management thing?" Hossler, a researcher who had been a practitioner, believed that much of the how-to would emerge from research. Wanting to do for college decision making what Tinto had done for retention, Hossler focused his subsequent research on college choice issues (1999).

The practicality of utilizing enrollment planners was becoming increasingly evident. When Ernie Beals closed the 1987 New Orleans conference with a summary of the program's content, he added "The Ten Knows of Recruitment and Enrollment Planning":

① Know your institution's *raison d'etre.*
② Know your institution's strengths and weaknesses.
③ Know what makes for success at your institution: retention, academic fit, personal and social fit.

⑭ Know the yield characteristics of your students as they move through the stages of prospective, applied, accepted, enrolled, and persisting/non-persisting student.
⑮ Know your primary, secondary, and tertiary or fringe markets.
⑯ Know your competition.
⑰ Know the impact of government (national, state, system) policies.
⑱ Know all there is to know about transfers/nontraditional students.
⑲ Know how to articulate all your "knows" to faculty and administration.
⑳ Know that you can't do it all by yourself.

The emphasis still may seem to have been on admissions marketing, but the comprehensiveness of enrollment management clearly was recognized. More important was the practical vein in which Beals couched his remarks. In leaving participants with this recipe, Beals responded to what Hossler was hearing. He set a tone for what practitioners would expect at future conferences and professional development settings: pragmatic, best practice sessions that would take enrollment management to a different, more pervasive, level. Beals left the Southern Office of the College Board in 1987, after which time the enrollment management conferences were not continued (Beals, 1999).

As the College Board was increasing its enrollment management offerings, the other major testing agency was also moving into the professional development area of the field. ACT (then the American College Testing Company) had just introduced a new product: the Enrollment Information Service (EIS). EIS used ACT student data to provide institutions with marketing and yield analyses by population segments within states. EIS emerged from an ACT research advisory committee, a group of institutional representatives in Ohio who wanted to do more with ACT data than just predict college performance. In fact, the Ohio ACT council had developed a significant annual professional development conference. Representative Tom Colaner used this as the model for a conference aimed at enrollment planners in 1986, one year after the introduction of EIS (Colaner, 1999).

Because its impetus was a new product development, the ACT Enrollment Planners Conference might be considered the first for-profit involvement with the enrollment management concept. However, though the EIS product was integrated into the ACT Enrollment Planners conference, the meeting closely followed the Ohio ACT Council model, with its emphasis on professional development. The conference's main theme was not selling ACT products but bringing together professionals from the field to share best practices in order to send participants away with at least a part of the recipe they were seeking. One hundred forty individuals attended the first ACT Enrollment Planners Conference in Chicago in 1986. In its 14 iterations since then (all in Chicago), the conference has never deviated from its format of a keynote speaker drawn from the national leadership of enrollment management and break-out sessions focusing on best practice programs. The conference consistently has been highly regarded and has an average attendance of 280, primarily from the Midwest but always with some national representation as well (1999).

While the College Board and ACT took the lead in the 1980s in terms of professional development activities focused on enrollment management, AACRAO was slower to highlight the emerging field. At AACRAO's 1988 Annual Meeting, sessions on enrollment management were more in evidence, but their content suggested both unfamiliarity with and ambivalence toward the new specialty. "Focus Groups: Market Research Adapted to Enrollment Management" was strictly recruitment-oriented, despite having been sponsored by the Institutional Studies Committee and not the Admissions and Financial Aid Committee. In the session titled "Aiding Enrollment Management through the Use of Decision Support Software," the presenters suggested that "enrollment management is managing the number, mix, and quality of students using recruitment and retention." The Professional Development Committee sponsored a session on "Taking a Leadership Role in Enrollment Management" that purported to explore "ways to influence your institution's enrollment management plans." Another professional development offering, "The Enrollment Manager: A Renaissance Person," looked at "the evolution of the enrollment manager as a new administrative role" and asked, "Is a new specialty needed or necessary?" (AACRAO, 1988).

At AACRAO's 1989 meeting, the New Developments and Techniques Committee sponsored the session "Enrollment Management: Same Game—New Name?—No!" The description answered the question:

> *More than the name has changed! The program will present a model of enrollment management, from prospects through college graduates, that would be*

> *applicable to any size institution. The proportionate impact of various university segments (alumni/ae, admissions, residence halls, advisors, faculty, etc.) at specific points in the model will be discussed. Practical examples of the concept of "front-loading" will be offered. Major role adjustments will be suggested for those directors of admission and/or financial aid who (want to) become enrollment mangers (AACRAO, 1989).*

Enrollment management finally was coming of age in the traditional admissions and records professional association.

At that same Annual Meeting, AACRAO revamped its governance structure; in so doing, it brought enrollment management to the forefront of the association's business. Among other changes, the restructuring created the position of Vice President for Enrollment Management, Admissions, and Financial Aid as well as an Enrollment Management Committee. Stanley Henderson was elected to the vice presidency at the New Orleans Annual Meeting. With Henderson's encouragement, the newly formed Enrollment Management Committee (under Ernest Beals, now dean of admissions at Georgia State) developed a new kind of professional development experience with an enrollment management emphasis for the 1991 Annual Meeting.

Called "AACRAO University," this professional development opportunity invited "presidents, vice presidents, deans, directors, or administrative professionals" to "find out how enrollment management skills...can help you." Participants were encouraged to "sharpen your professional skills by attending this 'conference within a conference' on enrollment management." For the first time, the association offered a full array of enrollment management courses: "Strategic Enrollment Management Planning—Theory and Practice," "Enrollment Management Models—Which One Should You Be Driving?" "Enrollment Management—Who's In Charge Here?" "Enrollment Management Professionals—Key Principles for Surviving and Thriving," "Orientation—Enrollment Management's Bridge from Recruitment to Retention," and "Managing Enrollment for Student Satisfaction—An Integrated Admissions and Counseling Process" (AACRAO, 1991).

Two sessions were identified as required and, in combination with others, led to a "major" or "minor," depending on which sessions were attended. "You will receive your diploma immediately," the conference program promised attendees, "by completing a degree application at the end of the session which completes your 26th credit for a major or your 14th credit for a minor" (1991). A national accrediting agency took umbrage at the marketing strategy for AACRAO University and accused AACRAO of offering bogus degrees. The agency even claimed that had Hawaiian law allowed it, it would have taken legal action to stop the program (personal correspondence in the author's possession, 1991).

Despite the accrediting agency's threats, the AACRAO University "conference within a conference" proved one of the most popular features of the 1991 meeting. Demand was so great that the pre-conference workshop, "An Introduction to Strategic Enrollment Management Planning," presented by California State University-Los Angeles's Director of Strategic Planning, Michael Dolence, was expanded from one to two timeslots; and registrants still were turned away! The demand prompted the AACRAO Board to consider expanding the enrollment management offerings so as to attract other professionals who might not attend an AACRAO Annual Meeting.

In January 1991, Vice President Henderson convened a meeting in Chicago with Ernest Beals (Enrollment Management Committee Chair), Michael Dolence, Tom Colaner (from ACT), and Doris Johnson (from the AACRAO National Office). The purpose of the meeting was:

- To explore the feasibility of an enrollment management conference to be cosponsored by AACRAO and ACT (and perhaps others).
- To brainstorm goals and objectives for such a conference.
- To map out a tentative agenda.
- To discuss logistics of time, place, cost, and marketing.

This planning committee developed a conference with an ambitious set of goals:

- Define/refine concept of enrollment management.
- Increase campus-wide awareness of enrollment management.
- Build a campus coalition to address enrollment management.
- Provide a structure for human resource development, training, and accountability.
- Provide new paradigms.

The targeted audience was not just AACRAO professionals, but also college presidents, vice presidents for academic and student affairs, and information systems personnel. In true enrollment management form, the committee also developed Key Performance Indicators to be used in evaluating the program. Five tracks were created, and the planners solicited nationally recognized presenters. Don Hossler, John Bean, Vincent Tinto, and John Gardner were to be featured speakers on organizational structures, research, the freshman year experience, and retention and recruitment activities. Jan Janzen of Xavier University, Chris Munoz of California Lutheran, Susan Clouse of Arizona State, and Tom Abrahamson of DePaul would present practitioner sessions and/or case studies. Four college presidents were invited to give plenary presentations (Johnson, 1991).

The planning group left Chicago committed to the concept of partnering with ACT. The prospect of joining with the testing company's successful Enrollment Planners' Conferences (then in their sixth year) seemed like a positive way to take advantage of an established clientele and trade on ACT's recognition in the field. However, at its February 1991 meeting, the AACRAO Board of Directors voted not to seek cosponsorship, believing the concept so important for AACRAO that it should not be shared with another group. The first AACRAO Strategic Enrollment Management conference was held in Atlanta, Georgia, in November 1991 (AACRAO Board Minutes, 1990-91).

The SEM conference promotional materials assured prospective attendees, "Building on the successful enrollment management sessions at the AACRAO Annual Meeting, this conference is a 'must attend' event...." Nearly 200 participants attended, with 95 percent rating it either "excellent" or "good." One evaluation enthused, "This SEM program absolutely needs to be continued, no exception. It has been the most valuable conference in years." "This was the most outstanding conference sponsored by AACRAO I've attended in my 17 years of experience," said another participant (Johnson, 1991). A former AACRAO president who attended wrote, "I know the board had a difficult decision to make...when debating whether to offer [SEM] or not. I think you'll find the participants are most grateful for your decision.... The area of enrollment management needs more attention from us now, not less, and most institutions need help in this area" (Randall, 1991, in author's possession). The conference cleared $13,000—a substantial sum from a professional development activity, and enough to convince the Board of Directors to continue the program the following year.

The 1991–92 academic year was something of a high water mark for enrollment management at AACRAO. After the successful SEM conference in November, the board authorized a book based on the papers presented in Atlanta. The Enrollment Management Committee repeated the "AACRAO University" conference-within-a-conference concept at the association's 1992 Annual Meeting (AACRAO, 1992). Having expanded the "university" to include multiple tracks, the committee introduced "core" courses and "concentration" courses. The association's journal, *College and University*, devoted an entire issue to enrollment management.

The SEM conferences provided the impetus for two significant AACRAO publications: The first, and more successful, was *Strategic Enrollment Management: A Primer for Campus Administrators* (1993). Written by Dolence and sponsored by AACRAO corporate member Datatel, the Primer, as it came to be known, was designed to provide presidents, vice presidents, deans, and others a quick read on the essential elements of enrollment management. It became a signature AACRAO publication. The second (actually the first authorized), *Strategic Enrollment Management: Cases from the Field*, edited by Dolence, brought together papers from the first two SEM conferences to demonstrate a wide range of enrollment management applications.

SEM conferences continued to be held—in St. Louis, Cincinnati, Charlotte, Aspen, Orlando, and again in Aspen—under the direction of Roger Swanson, Associate Executive Director of AACRAO, and vice presidents Walter Washington and Diana Guerrero. The planners successfully encouraged institutional teams to attend (the University of Cincinnati held the record for the largest team, with 20 of its faculty and staff attending in 1984). Some used the pre-conference workshops as a training ground for new enrollment managers or academics involved in enrollment management committees. At least one enrollment manager has a budget line specifically approved by the administration to support campus travel to SEM.

Despite its late entry into the field, AACRAO now is generally identified as the professional association "home" for enrollment management. AACRAO has provided both instruction and leadership in the field through conferences, publications, and individuals who have elevated enrollment management to its current position in American higher education. In many respects, AACRAO is the practitioner's enrollment management association.

Each year since 1991, the AACRAO Annual Meeting has offered "AACRAO University" to conference participants. The "conference within a conference" concept grew to include each of the association's functional areas. At times, conference planners struggled to unite the sessions into a cohesive whole; the result was often little more than a collection of unrelated titles. Finally, in 1999, the Enrollment Management Committee, with Jim Black of the University of North Carolina-Greensboro as chair, realized the vision of the original (1991) AACRAO enrollment management team with a linked set of "AACRAO University" courses organized around the theme of "Critical Dimensions of Enrollment Management." Each course presenter was selected on the basis of his or her expertise and assigned a different aspect of the topic. The "faculty" provided the continuity that might be expected of a team-taught learning community, and their efforts to describe the rich tapestry of enrollment management in the late twentieth century succeeded.

In 1999, the SEM conference returned to Orlando as "SEM IX." For the first time, the conference was co-sponsored, by AACRAO and the National Association of Student Personnel Administrators (NASPA). NASPA has had an enrollment management interest section for seven years and sponsored its own enrollment workshop in 1998.

Enrollment Management in the Future

Enrollment management has become widespread in American higher education. As early as 1987, a Peat Marwick survey indicated that 55 percent of institutions utilized some form of enrollment management on their campuses. Yet Hossler questioned whether enrollment management could be successful. "Enrollment influencing is a more accurate term. Enrollments cannot be managed in the same sense that the office of business and finance manages an institution's cash flow or in the same way the staff of an office is managed" (1984).

Huddleston believes very few institutions are "doing" enrollment management today; rather, they are practicing admissions marketing. Institutions typically tender an inducement to a talented admissions director by offering the financial aid or registration office. "Whatever will make the job more desirable" is acceptable to a leadership in crisis or trying to effect change.

Strategic enrollment management is inherently political because it involves integrating other people's property. "They'll give you as many offices as you want, but what they really want is a better class. If they perceive that enrollment management is in the way of that, you're in trouble" (1999).

Some of the messages in today's enrollment management operations could be described as "back to the future." As Michigan State admissions officers were taught 30 years ago that "they recruit best who serve best," so enrollment managers talk today of "imbedding service and exceeding expectations" (Black, 1997). It will be necessary for enrollment management systems to review policies and procedures regularly with an eye to removing unnecessary service barriers. The new motto of service in enrollment management might be "simplify, simplify, simplify." To be successful, enrollment management must facilitate student mastery of processes and provide convenient services. Staff must anticipate student needs as they shift their roles from regulators to educators and reach for the ultimate goal of enrollment management service: to become invisible to the student user (1997).

James Williams of the University of Cincinnati outlines five "Generations of Service" that will lead the way into an uncertain future (unpublished manuscript, 1997):

Stop and Go Service: Traditional. Independent units provide "run-around" service ("go here, stop there"). There is limited cooperation among service providers. Only where it is mandated is there any real collaboration. A silo culture is the norm and includes database support that often is independent and unlinked to other offices.

One-Stop Service: Transitional. Service units are housed under one roof. Units with similar missions merge, and cross-training and staff sharing are present. More cooperation and collaboration appear, and customer service becomes a priority as one-building shopping moves to one-stop shopping.

Self-Service: Transformational-Early. Technology becomes the primary service delivery system. Students access information via telephone, the Web, and e-mail. Information is available in integrated systems. The focus is on quality, not traditional service.

Non-Stop Service: Transformational-Advanced. Traditional service centers and organizational boundaries become irrelevant. Service is available 24-7 via Web, cable TV, etc. A culture of service pervades the institution.

Cyber-Service: Transcendental. Nontraditional education providers emerge. Cyber students may outnumber traditional students. Higher education mega-mergers occur. One global university becomes an increasingly distinct possibility.

As service evolves, it will have a significant impact on enrollment management. In the future, enrollment management will operate where there is a blurring of responsibilities and a breaking down of barriers in enrollment-related areas. Traditional offices will find their walls receding and even disappearing as functions merge and all faculty and staff become accountable for recruitment and retention. To accomplish that will require that enrollment management itself blend with instructional management (faculty), information technology, and student services.

Enrollment management, as it prepares for the future, reflects the reality of campuses today. The process of strategic identification of, movement toward, and maintenance of optimal enrollment has become the hallmark of a successful institution. Enrollment management is far more than a fancy name for the admissions office. Rather, it encompasses a cradle-to-endowment mentality that starts with recruitment before students even know they want to come, flows into retention, and renews itself with satisfied alumni ready to contribute to the institution.

Instructional management represents delivery of the curriculum—a partnership between the faculty and the registrar's office. It is far more than room assignments, scheduling, grading, records—though these are part of it. Instructional management also includes the development of the curriculum and academic policy that frame the institution's program offerings. It represents the creation, delivery, and management of the academic program. This is the essence of the academic enterprise in which Dolence says enrollment management must be imbedded.

Information technology is the institution-wide resource essential to achieving the institutional mission. Information technology provides both tools and leadership on a campus-wide basis for policy making and for initiatives that fundamentally affect how a campus does its work.

Student service means the delivery of services to students (rather than just the offices that deliver the services). Students should meet classroom challenges that test their abilities rather than service challenges that test their patience. For this to happen, service delivery must blur territorial responsibilities and break down artificial barriers among offices while perfecting the actual service received by students.

This concept of *blending* will lead in turn to new enrollment management critical success factors (or KPIs). The academic foundation of the institution ceases to be the purview only of faculty and academic administrators. Instead, managers and units will be intertwined with the academic enterprise, supporting and informing it. At the same time, the academic context will become student service-centered, with faculty emerging as true partners with an institutional/administrative retention infrastructure. The comprehensiveness of enrollment management will come to mean the merging of functions, along with the blurring of responsibilities and the breaking down of barriers.

Research and evaluation will drive all activity as assessment becomes a watchword for academic and service enterprises both. Information technology will become the engine and the servant of service. Service will change, simplify, and become more flexible for student use as a result of technology. But technology not only will drive service; it also will become the servant of service—or more appropriately, of students. Strategic planning will go beyond senior institutional officers to have an impact on all facets of the institution. Finally, to measure the success of enrollment management, it will be necessary to look for leadership that is team- and service-centered rather than office- and function-centered.

Enrollment management in the future will become a vehicle to exceed student expectations. It will optimize resources, improve services, improve quality, improve access to information, improve access to higher education, and demonstrate the relevance of academic programs. All of this will be possible because of the heritage that is the accumulation of the contributions and commitment of individuals and associations, of academicians and practitioners, who have shaped enrollment management and brought it to "the brink of a profession."

2

The Environment for Higher Education Opportunity

Thomas G. Mortenson

Introduction

Observed enrollments in higher education occur at the intersection of student demand and institutional supply curves. There can be no more students enrolled in higher education than there are eligible students who exist and want to be there, nor more students enrolled than there are spaces at institutions and programs willing and able to admit them. What we count as "higher education enrollment" is the meeting of students seeking and institutions providing opportunity for higher education; it is nothing more and nothing less.

This demand-supply model of higher education enrollment provides the structure for environmental scanning. The model enables the institution, the state, and other interested providers to anticipate, prepare for, and manage the demand for and supply of higher education opportunity.

Student demand for higher education is the number of eligible people times the rate at which they pursue higher education.

Institutional supply is the number of available student places at institutions and programs, limited by the institution's willingness to enroll those who apply.

In this chapter, the major components of student demand for and institutional supply of higher education opportunity are described within the framework of the demand-supply model described above. This description is from the perspective of identification and measurement of the various components of demand and supply. This approach is fundamentally quantitative and therefore, for demographic, economic, and other reasons, uses quantifiable measures.

This description also is from the perspective of colleges and universities as social institutions. Higher education institutions are created by society to address unmet social needs through the delivery of postsecondary-level services. As social institutions, colleges and universities must continuously monitor the environments in which they pursue their missions to ensure their responsiveness and accountability to the communities they serve.

This approach is not based on the belief that students exist to serve colleges and universities' institutional interests. That is, the business model of maximizing institutional revenues, prestige, or other welfare goals is antithetical to the view here of social institutions created to serve societal needs.

Student Demand for Higher Education

The number of students seeking higher education enrollment is the product of the number of people in the market population to be served times the proportion of this population that seeks enrollment in a program or institution.

There are two important parameters in this formulation: time and place. The dynamic and spatial contexts of student demand for higher education are vital to most institutions with specific missions that target specific populations. Student demand for higher education services comes from particular populations defined by age, previous academic experience and success, family income, religion, gender, race, ethnicity, etc. All student demand occurs at specific times and places. Thus, identification of potential market populations for higher education services accepts time and place as parameters.

MARKET POPULATIONS

Since about 1973, postsecondary education and training have become increasingly important to the economic success of people in the labor market. In the years after World War II, incomes rose at all levels of education and training. But around 1973, this trend changed. The real incomes of those with a high school education or less began to decline even as the real incomes of those with collegiate education—particularly baccalaureate and beyond—continued to increase. Higher education has become a dividing line between those enjoying a high quality of life and those just barely surviving. Since 1973, we have been moving into this human capital economy. And over the last three decades, Americans have become increasingly aware of the importance of higher education in determining their living standard.

This pressure for more formal education and training has greatly expanded the potential market population for higher education services. The shortening of the half-life of skills for vocational and professional services in the ever-changing, skill-based labor market further expands markets for continuing education. As a result, higher education services are sought by a growing share of the population over a longer period of their adult lives. Nothing on the horizon suggests that these base-broadening economic pressures for higher education services will abate any time soon. More than likely, the pressures of technological innovation and global competition will drive them further. The only serious question is whether higher education institutions can expand, adapt, and innovate fast enough to keep pace with these needs or whether alternatives will appear to fill the voids such institutions leave.

Time is one of the two major parameters on market populations. Such populations are dynamic in time, ever growing or shrinking, and always shifting. Each year, the number of high school graduates increases or decreases, and the rates of change vary by location. Expansion or contraction of the business cycle expands or reduces the amount of time adults have available to pursue higher education studies. Because we cannot influence time, we study its influence on market populations for higher education.

Place is the second major parameter defining populations. All institutions serve geographic regions, ranging from neighborhoods to the world. Higher education enrollments typically are drawn from certain high schools, regions, or states. Colleges may seek to diversify the geographic origins of their enrolled students for important educational reasons. But for efficient marketing and recruiting, each institution necessarily must target its staff recruiting and advertising on markets yielding the greatest returns of applicants and enrolled students.

The annual number of *high school graduates* is largely determined by the number of live births 18 years earlier and attrition in high school. Thus, it is possible to know the approximate number of high school graduates for each of the next 18 years. The actual number also will be influenced by mortality and net migration. Nevertheless, it will be determined primarily by the number of live births 18 years earlier[1] and by high school attrition that occurs between fall ninth grade enrollment (when state compulsory school attendance laws are still in effect) and regular high school graduation.[2]

An increasingly important issue pertaining to high school completion is the tracking of high school students into a four-tiered system of high school graduation. This system reflects academic quality, student persistence, and other measurements of high school completion important to higher education. The four tiers are:

College preparatory curriculum completers. These students have completed the curriculum recommended by the 1983 report *A Nation at Risk*. The curriculum consists of 4 years of English, 3 years of math, 3 years of natural science, 3 years of social studies, 2 years of a foreign language, and ½ year of computer science.[3]

Regular high school graduates. These students have completed the normal number of Carnegie units of high school study required for graduation. (The requirements are set by each state.)

High school equivalency/GED. An increasing proportion of high school completers are high school drop-outs who pass a test—usually the General Educational Development test administered by the American Council on Education (or some other test)—measuring performance equivalent to that of a high school graduate.[4]

Certificates of completion. These are students who put in their 12 years of elementary and secondary education but do not complete the Carnegie units required to receive a high school diploma.

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[1] See http://www.cdc.gov/nchs/births.htm

[2] See http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2001022

[3] See http://www.ed.gov/pubs/NatAtRisk/title.html)

[4] See http://www.acenet.edu/calec/ged/home.html)

Other forms of high school completion, including adult education, occupational program certification, correspondence and home school diplomas, and state tests, further cloud the traditional meaning of high school graduation.

Various organizations—including the National Center for Education Statistics (http://nces.ed.gov), Western Interstate Commission on Higher Education (http://www.wiche.edu/home1.htm), and state education agencies and school districts—prepare projections of the number of high school graduates for any given year. Because of the geographic character of college enrollments, projections at the state or regional level provide an important foundation for projecting traditional college-age market populations for institutions and states.

Intermediate-term projections of numbers of high school graduates are relatively easy to construct using a cohort survival method if a historical database of graded school enrollments exists: First graders become second graders a year later; second graders become third graders the following year; and so on up to high school. At that point, fall-term ninth graders are followed to the beginning of the tenth grade a year later through a transition or survival ratio. Similar cohort survival ratios are calculated from tenth to eleventh grades, eleventh to twelfth grades, and twelfth grade to high school graduation (not completion). These cohort survival ratios are then used to project current graded school enrollments twelve years into the future. Live birth data can be added to make projections six years further into the future.

Clearly, the value of projecting numbers of high school graduates is in knowing how many potential students are moving through the education pipeline toward higher education in the geographic market served by a particular higher education institution. Further value comes from knowing something about the characteristics of the students in the pipeline. The WICHE projections of numbers of public high school graduates by state, for example, disaggregate totals into the following racial/ethnic categories: African Americans, American Indians/Alaskan Natives, Asians/Pacific Islanders, Latinos, and white non-Latinos.[5] In all states, minorities represent increasing proportions of high school graduates, and usually, their family resources are substantially less than those of traditional non-Hispanic white students.

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[5] See http //www.wiche edu/Policyinfo/High_School-graduates/index.htm

Monitoring the proportion of school children receiving free or reduced-price school lunches can provide information about the numbers and locations of children from low-income families in the education pipeline (see National School Lunch Program, State Data[6]). The Census Bureau provides periodic updates on local area estimates—including school districts and counties—of numbers of children from low-income families.[7]

Institutions and states interested in the future production of high school graduates should be sensitive to the projected declining proportion and number of non-Hispanic whites and the increase in minority populations of students currently in the K-12 pipeline. All of the projected national growth in high school graduates is in minority populations—specifically, black, Hispanic, and Asian; most of these graduates will come from families whose incomes are substantially less than those of the non-Hispanic white populations higher education has traditionally served. These new, much lower income populations will require financial aid resources targeted at low-income, high-need students—a focus not clearly seen in federal, state, or institutional policies since the 1970s.

Older Populations

For students between high school (age 17) and full-time employment (the mid to late 20s), higher education competes with the powerful economic lure of the labor market. Eventually, higher education loses. But in this brief ten-year period, before young adults launch their careers, take on car and mortgage payments, and marry and start families, higher education often gets top priority. In 1998, 98.5 percent of the population through age 15 was enrolled in school; by age 18 to 19, the percentage dropped to 62 percent; by age 20 to 21, it dropped still further, to 45 percent; by age 22 to 24, it was down to 25 percent; and for those aged 25 to 29 years, the percentage enrolled in school was a mere 12 percent.[8]

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[6] See http://www.postsecondary.org/Spreadsheets.htm

[7] See http://www.census.gov/hhes/www/saipe.html

[8] See http://www.census.gov/population/www/socdemo/school/98tabs.html

Employment and child bearing and rearing compete with college enrollment during these years. Even for those students who are enrolled, the proportion of their time devoted to full-time studies decreases with age. Among college students in 1998, the proportion enrolled full time stood at 87 percent for those age 18 to 19 years; for those age 20 to 21, the proportion enrolled full time was 85 percent; for students ages 22 to 24, the proportion enrolled full time was 72 percent. Forty-nine percent of 25- to 29-year old students were enrolled full time, and only 36 percent of 30- to 34-year-old students were enrolled full time.[9]

The conflict between enrollment and employment works itself out by the time students reach their late twenties. Moreover, adults may have more time and need for higher education if loss of a job "frees up" time or if maintaining one's job (or a new employment opportunity) requires additional educational investments.

PARTICIPATION RATES

Although a substantial market population for higher education services may exist, only a fraction of that popluation will actually enroll. This fraction is the *participation rate*: the proportion of any potential population that actually enrolls in higher education. For analytical reasons, college participation is often disaggregated into components. These include high school graduation rates, college continuation rates (especially for recent high school graduates), student persistence (or institutional retention) rates for those enrolled, degree completion rates for those who start a program of studies, and attainment rates for the proportion of a population that completes a college degree. All such rates consist of numerators (enrolled students or graduates) and denominators (potential students) typically expressed as percentages or, sometimes, enrollment probabilities.

K-12 Progression

Students tend to flow through the U.S. education system in what often is referred to as "the education pipeline." Their progress is monitored at strategic points.

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[9] See http://www.census.gov/population/www/socdemo/school/98tabs.html

In the K-12 system, grade-to-grade transition or cohort survival rates measure this progress. Compulsory attendance laws keep most students in school until about age 15, or the beginning of ninth grade. Then, with school attendance becoming voluntary, students start leaving or dropping out of the education pipeline.

Approximately 90 percent of high school students are enrolled in public high schools—a proportion that has remained constant for decades. In 1998, 68 percent of those that had begun ninth grade in public high schools in 1994 received regular high school diplomas. The rest (32 percent) did not graduate from high school, although about a third of these were enrolled for twelve years and received certificates of attendance. Nationally, and in most states, the public high school graduation rate has been declining since 1983, when a national effort to stiffen high school graduation requirements was initiated. The public high school graduation rate in 1998 ranged from 51 percent in Georgia to 85 percent in North Dakota.[10] Regrettably, this trend has been obscured by a Census Bureau decision to count high school dropouts who pass a test (usually the GED) as "high school graduate equivalents."

College Continuation

High school graduates may pursue higher education at any time. However, decades of research on college success have shown that students who want to maximize their chances of earning a bachelor's degree should prepare to meet three conditions: (1) enroll in college directly after high school, (2) attend a four-year college or university, and (3) enroll on a full-time basis. Not fulfilling all of these conditions immediately reduces one's chances of ever completing a bachelor's degree. Consequently, monitoring college continuation rates directly from high school to college is important to those providing baccalaureate education.

National data on the college continuation of recent high school graduates are collected in the October Current Population Survey and are reported initially by the Bureau of Labor Statistics[11]; for example, approximately 63 percent of all 1998-99 high school graduates were enrolled in college the following

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[10] See http://www.postsecondary.org/Spreadsheets.htm

[11] See http://stats.bls.gov/news.release/hsgec.nr0.htm

October. The Census Bureau later reports these data in more detail.[12] Also, the National Center for Education Statistics collects data in even-numbered years on the state of residence of college freshmen.[13] These data are combined with state high school graduate data to calculate college continuation rates by state in even-numbered years.[14]

Persistence

Much of the attrition in college enrollment occurs prior to the second year of college. Thus, freshman-to-sophomore persistence (or dropout or retention) rates monitor the success of admitted freshmen reaching the second year of college. These data are available from a variety of sources (e.g., U.S. News[15], Consortium for Student Retention Data Exchange at the University of Oklahoma[16] etc.). The longest time series on persistence at the largest number of institutions is produced each year by ACT.[17] ACT compiles and reports institutionally supplied data by institutional control, highest degree offered, and, most important, by academic selectivity. The complete time series of these data, from 1983 through 2000, are available at http://www.postsecondary.org/Spreadsheets.htm.

Graduation Rates

Data on graduation rates are somewhat difficult to compile because of the many ways in which students pursue their educations. Many "stop out" and restart their educations; many transfer between or at least take courses at different institutions during their student careers; and none takes the same courses at the same rates. Thus, two measures of graduation rates may be taken: *institutional graduation rates* and *overall graduation rates*.

Institutional graduation rates follow a defined cohort of entering freshmen through a specified period of time and then count those that have graduated from the institution where they began their studies. For students entering two-year programs since 1983, ACT has gathered graduation rate data three years after entry (five years after entry for students in four-year programs). Like ACT's dropout/persistence data, these data are compiled by institutional control, highest degree offered, and academic selectivity. The ACT institutional graduation rate data have been compiled at http://www.postsecondary.org/Spreadsheets.htm.

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[12] See http://www.census.gov/population/www/socdemo/school.html

[13] See http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=98277

[14] See http://www.postsecondary.org/Spreadsheets.htm

[15] See http://www.usnews.com/usnews/edu/college/corank.htm

[16] See http://www.occe.ou.edu/csrde/

[17] See http://www.act.org/news/releases/1998/04-01b98.html

In the 1990s, the measurement convention was altered to calculation of institutional graduation rates six years after students' entry into four-year programs because of longer time to graduation—particularly for students attending public institutions. These data are available from a variety of published sources, including the *U.S. News & World Report* rankings.

Overall graduation rates ignore attendance patterns and simply calculate the proportion of a cohort of the population with any college experience that has completed a degree. The Census Bureau reports data in this format, and by convention, graduation rates typically are reported for students between the ages of 25 and 29 years.[18] In 2000, the bachelor's degree completion rate among those ages 25 to 29 years was 50 percent; an additional 15 percent had completed an associate degree. (The Census Bureau redefined "any college" in 1992, so that data prior to 1992 are not comparable to data compiled since then.)

Attainment Rates

Degree attainment rates are similar to graduation rates, but they have a different denominator. Whereas graduation rates use the number starting college in the denominator, attainment rates use the population. Attainment rates can only be calculated with Census Bureau data because of the need for complete denominator information.[18]

In 1999, 29.1 percent of the population of 25- to 29-year-olds had completed at least a bachelor's degree, according to Census Bureau data. The bachelor's degree attainment rates were 28 percent for males and 30 percent for females. By race/ethnicity, the rates were 34 percent for non-Hispanic whites, 18 percent for non-Hispanic blacks, 54 percent for Asian/Pacific Islanders, and 10 percent for Hispanics.

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[18] See http://www.census.gov/population/www/socdemo/educ-attn.html

INFLUENCES ON PARTICIPATION RATES

Students pursue education and make choices about education for dynamic, varied, and unique reasons. Among students from lower-income and first-generation family backgrounds, the reasons for attending are primarily economic. Among students from higher-income and second- (or more) generation families, the reasons for attending college give greater weight to the experience itself.

Economic Benefits

A college education is an investment involving long-term benefits and short-term costs. The economic theory of student demand for higher education holds that a potential student will enroll in higher education if the net present value (benefits less costs) of a higher education investment is greater than that of each of the alternative investment possibilities that are known and available to the potential student.

- The *benefits* of a college investment are the present value of the increased future earnings of a college graduate compared to those of a high school graduate, plus other non-pecuniary benefits.
- The *costs* of a college education are the present value of the direct costs of college attendance (tuition, fees, books, supplies), indirect costs (living costs while attending college), and earnings given up while attending college.

Many studies have been made of the economic value of a college education. All reach similar conclusions: College is a valuable investment for those who earn degrees and then put their education to work in the labor force.[19]

Other Benefits

The annual survey of American college freshmen conducted by UCLA's Higher Education Research Institute provides a second perspective on freshmen's reasons for attending college. These data, having been collected since 1971, are reported by gender, institutional type and control, and admissions selectivity. In 1999, the two categories of reasons most often cited for deciding to go to college were: (1) economic/career [to get a better job (73%), to get training for a specific career (72%), to make more money (71%)] and (2) general education [learn more about things that interest me (72%), general education and appreciation of ideas (60%), more cultured person (35%)]. Other reasons, such as parental desires and mentor or role model influences, also were cited.

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[19] See http://usnhdata.unh.edu/analysis/Briefs/College_worth.pdf and http://www.postsecondary.org/privatevalue.htm

Generally, more education leads to greater economic stability and security, more prestigious employment, better access to health care, less dependence on government assistance, longer life spans, better dietary and health practices, healthier children, greater use of seatbelts, more continuing education, greater Internet access, greater attendance at live performances, greater participation in leisure and artistic activities, more book purchases, better academic performance of children, higher voting rates, greater knowledge of government, greater community service, more volunteer work, greater tolerance of unconventional literature, greater community leadership, and less criminal activity and incarceration.[20]

Choice

The UCLA freshman survey has studied college choice since 1971. These data are reported by gender, institutional type and control, and admissions selectivity. Freshmen were most likely to report that the academic reputation of the college and the placement rate of graduates in good jobs were very important to their college selection. Other somewhat less important factors in college choice were school size, financial aid offers, low tuition, graduate school preparation, social reputation, location near home, and availability of special programs.

Supply of Higher Education

Higher education opportunity is supplied by a variety of religious, proprietary, and nonsectarian organizations and federal, state, regional, and city governments. Each has interests it wants addressed through higher education, and for those purposes, each may create and fund colleges and universities. Sometimes these institutions take on lives of their own, particularly when they are abandoned by the sectarian organizations that created them. But all are social institutions and therefore are dependent for their lifeblood on the annual infusion of money and students.

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[20] See http://www.postsecondary.org/Spreadsheets.htm

In the United States, higher education is provided through a mix of private and public institutions. Approximately 81 percent of undergraduate students are enrolled at public colleges and universities, with the remaining 19 percent enrolled at private institutions, most of them not-for-profit. However, only about 42 percent of all institutions are public; most colleges and universities are private. Thus, public institutions tend to enroll more students than do private institutions.

It was not always true that most students were enrolled at public institutions. Higher education in the United States had private origins, with early colleges and universities usually serving classical and sectarian missions. Public institutions came later, with somewhat different economic and democratic missions. For a while, public institutions were better funded than private institutions.

FUNDING OVERVIEW

The three main policy interests for organizations and governments that create and fund higher education opportunity are:

Capacity. The first obligation of those seeking to provide higher education is to provide resources to build physical plants, hire qualified faculty, stock libraries, and provide the other features of an institution appropriate to serve the expected numbers of students. There can be no more enrolled students in higher education than there is capacity in institutions to accommodate them.

Quality. Because higher education operates in competitive markets, resources must be available to ensure acceptable standards of quality in the educational services delivered to students. This covers faculty compensation, library materials, information technology, timely delivery of classes, etc. Students (rightfully) are concerned about the quality of the higher education opportunities they seek and for which they pay good money.

Affordability. A college education costs a great deal of money, and each student has a unique ability to pay those costs from his or her own resources. Students with insufficient personal resources will require financial assistance to be able to pay for the direct and indirect costs of college attendance. Tuition and financial aid are the policy tools that enable students to pay these costs.

Fulfilling each of these interests in delivering higher education opportunity costs money. When funding is shorted, one or more of these dimensions is sacrificed. In difficult times and places, all may be sacrificed at the same time.

Because funds for higher education are provided by sources with a variety of expectations related to mission, higher education is financed by a varied and shifting mix of revenue sources. In 1998, under the accounting system of the National Income and Product Accounts, $150.1 billion was spent by colleges and universities on the education of students. Approximately 48 percent of the revenue received by higher education was provided by students and families through tuition and fees; 9 percent was provided by the federal government, primarily in the form of student financial aid programs; and 43 percent was provided by state (and sometimes local) government appropriations to public institutions.[21]

Currently, serious funding problems in the level and form of higher education investment are reducing the supply of higher education at the national, state, and institutional levels. For example:

- Higher education's share of the U.S. gross domestic product has been diminishing since 1993. This has been caused by the sharp decline in state support for public higher education since 1980, accompanied by some restraint in raising tuition to fully offset these losses.
- College affordability has re-emerged as a serious barrier to higher education opportunity for those from low and moderate family income backgrounds in the 1980s and 1990s. The focus of new financial aid initiatives (relaxed need analysis, merit scholarships, tax credits, and tax-favored college savings and prepaid tuition programs) has shifted from students who need assistance to pay college costs to those who often do not have need but whose parents vote.

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[21] See http://www.postsecondary.org/Spreadsheets.htm

PUBLIC INVESTMENT IN HIGHER EDUCATION

Federal Investment

The Morrill Act of 1862 provided federal land grants to states for the creation of public colleges for the primary purpose of teaching subjects "related to agriculture and the mechanic arts" but without excluding the general sciences and classical studies. (The act also provided for military training.) These land grants were supplemented with money in the second Morrill Act (of 1890). In 1944, the GI Bill opened the doors of college to thousands of young men who otherwise may never have pursued higher education.

The Higher Education Act of 1965 further expanded higher education opportunity, particularly through need-based student financial aid and student support services programs. Chief among the federal initiatives are the Pell Grant program of need-based grants to students from the bottom half of the family income distribution and TRIO pre-college and in-college tutoring, mentoring, and counseling services for students from low-income, first-generation families.

In recent years—roughly since 1980—the federal government's ability to foster higher education opportunity has diminished. Chief problems include:

- the shift in the form of federal student financial aid from grants to loans and the resultant shift in financial aid costs from taxpayers to students;
- the loss of purchasing power of the Pell Grant maximum award, with the result that students from low-income families have been reluctant to borrow or have had to assume debt or take on more employment while enrolled in order to make up the difference;
- the thinness of federal non-financial outreach efforts to students from low-income family backgrounds;
- the loss of focus on need; and
- the pandering of federal policy makers to voters through tax credits and tax-favored college savings programs.

Despite these problems, the federal investment on behalf of financially needy students remains substantial. Recently, a renewed funding commitment to Pell Grants has addressed a portion of the problem.

State/Local Investment

The main source of public funding for higher education has been the states, through annual appropriations. States have created or authorized the creation of public normal schools, land-grant universities, junior colleges, and urban universities. States have upgraded and expanded their missions. They have appropriated public funds for their operation. States appoint the governance structure that provides oversight, audits expenditures, and, at least biennially, reviews the performance of public higher education to keep it attuned to public interests.

During the last two decades, higher education's relative priority in state appropriations has diminished sharply. State tax fund appropriations for higher education decreased from a high of $11.22 per $1,000 of state personal income in FY1979 to $7.81 in FY2001: a 30 percent cutback. Expressed another way, the FY2001 state tax fund appropriations total of $60.6 billion is $26.5 billion less than the FY1979 level of state aid to higher education. Governors and legislators have diverted state resources from higher education and other budget areas to build and fill prisons and to pay for health care for poor people through Medicaid.

Public institutions have increased tuition charges to students to offset the loss of state support.[21] Very few states have offset the resulting increase in attendance costs with state financial aid. The result for public higher education institutions has been less state support, higher student charges, and deteriorating competitiveness compared to private institutions. The capacity/quality/affordability dilemma for public institutions is acute.

PRIVATE INVESTMENT IN HIGHER EDUCATION

Students and their families paid nearly $72 billion in tuition and fees in 1998. In fact, they have provided a growing share of the revenues of higher education for about the last 20 years—from 35 percent of higher education revenues in 1980 to 48 percent by 1998, according to National Income and Product Accounts. Thus, students and their families are paying $19 billion more for their college education in 1998 than they did in 1980.

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[21] See http://www.hecb.wa.gov/policy/data.html

Generally, increasing real prices for higher education will decrease student demand.[23] But during this same period of time, the proportion of high school graduates enrolling in college the following fall has increased—from 49 to nearly 66 percent.

What has driven the expansion in college enrollment during two decades of significant real price increases has been the rapidly growing labor market demand for college-educated workers combined with the shrinking labor market demand for workers with a high school education or less. For the last 30 years, the income differential between college- and high school-educated workers has grown substantially for both men and women.[24] But it has grown at about the same rate as institutional charges. Thus, while a college education is more expensive than ever (compared to family income, inflation, and financial aid), its extraordinary investment value has persisted for more than 30 years because its economic value also has grown.

INSTITUTIONAL SUPPLY

Students may only enroll in institutions and programs if they are admitted. Institutions and programs may choose to limit or target recruiting, restrict admissions, and package financial aid to prefer some types of applicants over others.

In fact, most four-year colleges and universities restrict admissions, and more are doing so each year. According to data supplied to ACT by institutions, 77 percent of 1,439 public and private four-year colleges and universities in 1998 practiced restrictive admissions policies (traditional, selective, or highly selective); the remaining 23 percent practiced non-restrictive admissions (open or liberal). Twelve years earlier, 69 percent of public and private four-year institutions practiced restrictive admissions. Public and private four-year institutions are about equally likely to restrict admissions (75 percent of public institutions versus 78 percent of private institutions).

Academic selectivity restricts higher education opportunity unevenly across different population groups—most notably, those defined by race/ethnicity and family income levels. The high degree of correlation between restrictive admissions criteria (test scores, high school grades, class rank) and family income means that restrictive admission favors students from higher-income families. (The same argument applies to merit scholarships, and the opposite argument applies to need-based financial aid.) As both public and private colleges and universities have become more selective over the past 15 years, they have expanded opportunities for students from higher-income families and reduced opportunities for those from low-income families.

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[23] See http://www-personal.umich.edu/~dheller/papers/papers_index.html

[24] See http://www.postsecondary.org/privatevalue.htm

More important is the projected growth during the coming decade in minority populations with lower family incomes. Four-year institutions are targeting their enrollments at a diminishing proportion of the potential market population for higher education services.

OTHER SUPPLY ISSUES

Additional supply issues will affect higher education opportunity. They include:

- Competing alternatives to traditional higher education. These include proprietary organizations, distance education through information technology, and alternative postsecondary education and certification provided by businesses leading change and unable (or unwilling) to wait for higher education to "catch up."
- Qualification of potential students. Recent research suggests that nearly all students who are academically qualified for college are enrolling. Other research suggests that academic readiness displaces financial aid as a factor in students' college attendance decisions. Clearly, preparing more high school students for college—in terms both of academic readiness and orientation—would expand the traditional market for undergraduate enrollment.
- High-stakes testing for high school graduation. Raising the bar to high school graduation has, is, and may continue to shrink the proportion of ninth-grade students able to complete high school. This will shrink the supply of high school graduates and increase the supply of those with alternative credentials.

Conclusion

The demand/supply model for higher education opportunity provides a useful structure for identifying and organizing the influences on college and university enrollments. Student demand is determined by the size of market populations times their participation rates in higher education. Both market populations and participation rates have components defined by time and place. Similarly, higher education supply is determined by institutional and program capacity times the willingness of institutions to admit applicants. These also are defined by time and place. Every student enrolled in higher education has passed both hurdles—the hurdle of demand as well as of supply. Those not enrolled in higher education have encountered one or more obstacles, in either demand for or supply of higher education opportunity—or both.

3

Conceptual and Theoretical Thinking about Enrollment Management

*Don Hossler and Larry Hoezee**

Introduction to the Foundations of Enrollment Management

As Stan Henderson notes in Chapter One of this book, the emergence of the concept of enrollment management has been a direct response to the changing environment colleges and universities have encountered during the past two decades. Like all organizations, institutions of higher education have always organized themselves to optimize their ability to acquire and protect scarce resources. In 1966, Alan Cartter began writing about the impending decline in the number of traditional-age college students. As a result, colleges and universities began increasingly to focus their attention on attracting and retaining students.

Since that time, public policy has shifted. The market model has become a dominant paradigm for profit, nonprofit, and government organizations. Increasingly, public universities and colleges have had to mimic the private sector, securing greater portions of their revenue from student enrollments. (Most private colleges obtain 80 percent or more of their revenue from tuition, and public institutions seem to be inching toward this ratio.) These

*We would like to dedicate this chapter to first-born children and the raw optimistic energy they can bring to difficult situations as they eagerly try to get up on their feet.

changes have resulted in the recruitment of valuable and, depending on the region, increasingly scarce traditional college-age students. Although the sources of student headcount revenue can be more indirect at public institutions, student enrollments determine how much support such institutions receive from the state, as well as the amount of tuition revenue they receive. In light of the demographic trends of the 1970s, 1980s, and early 1990s, it is no surprise that college and university administrators focused increasing amounts of their attention on attracting and retaining students.

This chapter examines the conceptual and theoretical underpinnings of enrollment management. Some practitioners are disinterested in theories, research, and conceptual frameworks. Such disinterest is shortsighted. Management strategies and tactics change constantly. In all fields of management and administration, there is a constant infusion of new ideas, new strategies, and new approaches to solving complex problems that organizations and leaders encounter. While longstanding practices that are being advocated under the guise of new phrases and terminology might only refresh our perspective, new strategies and approaches sometimes really are new and better.

Bean (1990) has observed that there is nothing so practical as a good theory. By understanding the underlying concepts and principles that have resulted in the emergence of enrollment management, practitioners are better able to anticipate shifts in the goals and purposes of enrollment management efforts on their campus. They are less likely to jump on the bandwagon of the latest fad, and they are more likely to remain on the cutting edge of enrollment management practices. Good theories can guide practice and help enrollment managers focus on key strategic activities that enhance organizational effectiveness.

Successful enrollment managers draw upon a wide range of theories, concepts, and practices. Continuous, long-term success in the field rests upon the following theories and concepts:

❶ resource dependency theory;
❷ systems theory;
❸ revenue theory and revenue maximization;
❹ students as institutional image;
❺ enrollment management as courtship; and
❻ the academic enterprise.

The principles and implications of each of these important constructs are explored in this chapter.

Resource Dependency Theory

No theoretical construct provides a better understanding of the emergence of the field of enrollment management—or a better focal point for enrollment managers—than resource dependency theory. Resource dependency theory helps enrollment managers understand how colleges and universities respond to the demographic, budgetary, competitive, and public policy changes taking place around them (Pfeffer and Salancik, 1978; Tolbert, 1985; Volkwein, 1989; and St. John, 1991). Pfeffer and Salancik (1978) developed resource dependency theory as a means for analyzing the relationships between organizations and the external environments in which they operate. They note that most organizations are heavily dependent upon the external environment for resources. Most organizations are not self-sufficient and require resources from the external environment for their continuing survival. For-profit organizations operate under some constraints but can try to develop new markets and new sources of support as they see fit. Non-profit organizations, however, operate under different constraints. They have less geographic mobility, less control over their product, and face a difficult external environment because their role in society is so distinctive (Clark, 1983; Clott, 1995).

Drawing upon resource dependency theory, Tolbert (1985) suggests that the structures of organizations, both for-profit and non-profit, are associated with the resources upon which they depend in the external environment. For example, as private colleges and universities' dependence on private gifts increased, so did their numbers of administrative offices. Similarly, institutions that derive significant portions of their revenue from tuition, or from state funding formulas sensitive to enrollment shifts, are likely to devote attention and resources to revenue optimization.

Because there is uncertainty in their environments, universities and colleges look to acquire additional resources by structuring their relationships in such a way as to establish unique connections with the external environment—and, consequently, to manage their dependence (Heimovics, Herman, & Jurkiewicz Coughlin, 1993; Gargiulo, 1993; Salancik & Pfeffer, 1977). Most institutions do not have slack resources to buffer against unsuspecting winds of change (Nicholson, 1995). Instead, institutions seek to grow existing money sources or to find new ones. Not only do colleges and universities try to effect changes at the institutional level, but they also attempt to influence the external environment. For example, public institutions pressure members of Congress and state legislators for public monies; higher education associations undertake lobbying efforts, such as making the Pell Grant an entitlement and encouraging support for the appropriation for merit-based state grants.

Resource dependency theory helps enrollment managers continually ask, "What are the scarce resources for my campus that are associated with student enrollments?" These scarce resources could range from the number of students enrolled, to the total net revenue generated by the number of students enrolled, to the diversity of enrolled students, to the academic characteristics of the students enrolled (Breneman, 1994). This theory helps professionals looking at these relationships make further linkages with strategic planning; enrollment managers on many campuses are concerned about their lack of input into major policy decisions on their campuses. An antidote to the frequent refrain of "How can I have more input and influence on decisions," resource dependency theory provides a conceptual lead for accomplishing this implicit goal. Enrollment managers need to ask themselves the following questions:

① What are the areas of scarcity on my campus?
② Are student enrollments associated with any of these?
③ Can my organizational unit help provide these scarce resources?

These questions provide the keys to influence within a college or university environment. At a campus highly dependent upon tuition, the link between the number of students enrolled and tuition revenue is obvious. On other campuses, total enrollments and net revenue may not be distressing thoughts, but the quality or diversity of the student body may be of concern. Scenarios such as these necessitate that enrollment managers attach themselves to pressing institutional priorities and, in the process, strengthen their ability to influence institutional policies.

Resource dependency theory also provides a framework for anticipating emerging priorities for enrollment management units. For example, if a new president is concerned about college ratings and rankings, the enrollment manager should anticipate more campus focus on rankings. A thoughtful enrollment manager might also want to make sure she knows more about rankings than any other campus administrator. The enrollment manager then can be prepared to help the president craft a sound approach to addressing concerns about rankings (Heimovics, Herman, & Coughlin, 1993). If states change their funding formulas for public institutions, making state funding more or less sensitive to the number of students enrolled, then enrollment managers should anticipate a direct impact on the priorities of the enrollment management organization. Resource dependency theory provides a structure for conducting environmental scans, searching for trends that might affect the priorities, health, or vitality of enrollment management units.

Systems Theory

In order to function effectively in a collegiate setting, enrollment managers need to have an understanding of systems theory and how it can help guide their organizational strategies. *Systems theory* examines the structure and behavior of complex organizations. *Organizational systems* are composed of parts, relationships among the parts, and the way in which these are managed to create a coherent whole (Nicholson, 1995).

For enrollment managers, an important feature of systems theory work is its focus on closed and open systems. *Closed systems* are focused inward and are concerned primarily with what happens within their organizational unit. *Open systems*, on the other hand, emphasize a constant interchange among the organization, other organizations, and the external environment. Advocates of open systems note that other organizations and the external environment require constant interaction and communication and that these external forces influence organizations.

Colleges and universities present an interesting paradox. Large research universities are highly decentralized and are characterized by significant autonomy and independence. Even small colleges are more decentralized than other organizations of similar size. Institutions of higher education also are distinguished by greater levels of collegiality and informality than many other organizations. Collegiality can minimize tendencies toward closed systems. The degree of autonomy and decentralization found on many campuses, however, can foster high amounts of independence among administrative units, creating more opportunities for closed system thinking. Senge (1990) observes that successful modern organizations require open systems and high levels of communication among units throughout the organization. In order to effectively influence student enrollments, enrollment managers and the elements that make up an enrollment management unit have to share information, goals, and strategies frequently. They have to recognize their mutual dependence upon one another.

Successful enrollment management efforts require open systems. The factors influencing college enrollments are many and complex. The mission of an institution, the types of majors, the degrees of emphasis on teaching and research, location, tuition and financial aid policies, the student-faculty ratio, the demographic profile of enrolled students, the degree of admissions selectivity, the quality of student life, state and federal policies, student recruitment and retention programs, and the economy all influence student enrollments. By necessity, enrollment management activities encompass a wide range of activities crossing academic and non-academic units throughout a campus. Many aspiring enrollment managers assume they will have the greatest success if they can be in charge of everything related to student enrollments. Yet such a notion is unrealistic. No one—not even the president—can control all factors influencing enrollments. Furthermore, campus norms and politics always influence the composition and structure of enrollment management units. Enrollment managers therefore must approach their task from an open systems perspective.

The enrollment management unit should strengthen its connections with the administrative unit charged with enhancing student diversity as well as the public affairs unit on campus. Diversity units on college campuses typically focus not only on providing support and activities for students of color after they enroll, but they also are frequently involved in early outreach activities, retention programs, and faculty and staff diversity efforts. If the admissions office fails to communicate and collaborate with the diversity office, the campus may replicate activities, needlessly spending more than is necessary to achieve its goals; the units may even resort to unproductive competition with each other.

Integrated marketing is another example of a highly valued open systems. Integrated marketing advocates the segmenting of institutional stakeholders and markets and the targeting of public relations and marketing activities to achieve important campus goals. This approach to public affairs can create a strong ally for enrollment management organizations. Again, an open systems approach is essential.

Finally, an open systems approach is necessary among the various units that make up an enrollment management organization. If administrative units do not understand that orientation programs can simultaneously be the last part of a recruiting effort and the first part of a strong retention program, then it will be difficult for enrollment management efforts to succeed. If financial aid administrators and admissions professionals do not believe they both can be more effective by working together rather than apart, they will miss opportunities to collaborate on projects and be more efficacious. If administrators responsible for student retention are blind to the effects of financial aid upon persistence or fail to realize that the amount of campus-work study funds can influence student persistence, or how the range of social activities on weekends may influence the retention of traditional students, then they are likely to wonder why their campus's drop-out rates are higher than established benchmarks.

Enrollment management involves many organizational units on campus; it requires high degrees of collaboration and interdependence. An open systems approach with high levels of communication is fundamental to the profession.

Revenue Theories

During the past two decades, senior campus administrators have come to acknowledge more explicitly the relationship between student enrollments and fiscal health. It is no longer possible for enrollment managers to be successful if they do not understand the economic relationships undergirding their work.

Howard Bowen put forth a theory that remains practical today. In his 1980 book *The Costs of Higher Education*, Bowen discusses the *revenue theory of costs*: an institution will spend as much money as is available from various sources. Thus, costs follow revenues—an idea counter to some budgeting practices. From this theory extend a number of heuristics which guide enrollment managers and others (Hossler, 1984; 1986; Hossler, Bean, and Associates, 1990; Leonard, 1983). Bowen's "rules of thumb" are as follows: (1) the dominant goals of institutions are educational excellence, prestige, and influence, (2) in quest for excellence, prestige, and influence, there is virtually no limit to the amount of money an institution could spend for seemingly fruitful educational ends, (3) each institution raises all the money it can, (4) each institution spends all it raises, and (5) the cumulative effect of the preceding four laws is toward ever-increasing expenditures. It goes beyond the scope of this chapter to discuss Bowen's laws in detail; rather, this chapter focuses upon his first maxim: that the goals of institutions are to excel in, maintain, or possibly gain prestige and influence.

EDUCATIONAL EXCELLENCE, PRESTIGE, AND INFLUENCE

Enrollment managers focus on these illusive yet important objectives every day. Regardless of the type of institution, these concepts should guide the decision making of enrollment managers—and all senior campus administrators. Bowen observes that colleges and universities will devote no end of time and money in pursuit of these goals; this fact should not be lost on enrollment managers. At most institutions, enrollment management efforts can never do enough to help their institutions achieve these goals. If enrollments have increased, then the focus will shift to quality or to student diversity so the campus can further enhance its perceived excellence. If enrollment demand curves look solid, then efforts to reduce campus-based financial aid are likely to emerge in order to increase net-tuition revenue, which in turn frees up more funds for laboratories, library holdings, and faculty salaries. For enrollment managers, Bowen's observations are simultaneously normative, descriptive, strategic, and frustrating: No matter how successful enrollment management efforts have been, they are never enough.

This observation might lead enrollment managers to connect Bowen's laws with Cohen and March's "garbage can" theory of management (1974). Cohen and March suggest that governance and decision making in colleges and universities have many characteristics of organizational anarchy. Many decisions are not linear or even seemingly very logical. According to their decision-making model, solutions and problems are tossed into the decision-making garbage can and then randomly paired in the form of decisions. In such an environment, astute enrollment managers will remember Bowen's laws, seeking ways to attach themselves to problems and solutions that will enhance campus power, influence, or prestige. One way to achieve these goals is to conceive of revenue-generating ideas.

As Bowen notes, the cumulative effect of the four laws described above is toward ever-increasing expenditures. In such an environment, it becomes necessary to maximize resources and minimize costs. This leads the discussion to another key concept: revenue maximization.

REVENUE MAXIMIZATION

One of the most dramatic changes in higher education during the past two decades has been the meteoric rise of tuition discounting. Indeed, tuition discounting has become a key strategy for enrollment managers. But because of the exponential growth of campus financial aid budgets, it has greatly increased the pressure on enrollment managers.

Economists contribute to our profession by sorting out the financial zeitgeist within which we operate (Fiore & Grosskopf, 1994; Baum, 1996). Maximizing revenue and profits, minimizing costs, substituting inputs while monitoring the quality of the outputs, and opportunity costs all play into our practice. All good budget directors understand that to generate monies for the enrollment services unit means at least one of the following: grow more dollars, maximize the return from a budgeted dollar, and minimize costs. Growing dollars can be quite difficult. To maximize dollars, strategy sessions review the various returns on an expended dollar, looking for ways to realize a desirable return. For example, identifying which segment of the market efforts should be centered on (by using surveys such as the Admitted Student Questionnaire) assists in maturing outreach activities. If prospects in EPS (Enrollment Planning Service) markets NY-01 and AZ-02 respond well to your radio ads, then this activity may maximize your efforts; but if reply cards in high school magazines work better and are less costly, then a maximization principle would suggest the use of cards over the ads. Some institutions are finding that money spent on marketing, labor, brochures, and postage for a basic brochure and reply card are nearly as effective as a full-blown brochure and card in terms of generating responses from searches. In this instance, the minimization rule suggests that unnecessary costs—such as the four-color glossy—be excised. However, research suggests that costs occasionally need to move in the opposite direction from what one might expect. St. John (1994) found that institutional grants might need to be larger to obtain the desired effect. In this instance, cutting costs can go too far toward being thrifty and may cost your institution revenues that could have been generated.

Although the practice of tuition discounting in one form or another for two centuries, it was neither commonly practiced nor widely understood by many senior campus administrators until recently. Conceptual leads for this practice can be found in Robert Cross's book *Revenue Management* (1997). An early pioneer of financial strategy in the airline industry, Cross helped revolutionize the way airlines conduct business. He proposed discounts on airline fares for certain people profiles. Rather than charge a flat fee for each seat on an airplane, variable costs were made available, largely based on the timing of the purchase decision. The underlying rationale of Cross's proposal pertains to a discussion of fixed, variable, and marginal costs.

Economists studying the cost structure of an airline flight would quickly develop a typology of costs. *Fixed costs*, such as core administrative salaries, tires for the airplane, and other overhead expenses, are necessary costs of flying the plane from point A to B. *Variable costs*, such as adding another stewardess, are often situation specific, while *marginal costs* are those occurring on the fringe—usually unnecessary but passenger-welcomed add-ons (such as an in-flight movie). Departing airplanes with excess capacity (empty seats) represented revenue lost. The airlines wanted to add value to their companies and sought ways to do so. Having found that not all passengers are willing to pay the same price, Cross recognized that appropriate discounting practices and policies would assist these various customers and generate needed revenue for the airlines.

Breneman (1994) presents a more scholarly application of this issue. Among other things, he examines the cost structure of operating a college. A former college president, he understood clearly that overhead and salaries were fixed costs and represented a sizable portion of the operating budget. Further, he knew that some classrooms were at capacity while others had empty chairs. Expenses such as running cable and computer lines in the residence halls were not necessary but represented variable costs that probably were a wise investment in the 1980s. Marginal costs might be incurred by giving all campus tour participants a mousepad or campus ID holder. Over time, such assorted costs often become "fixed costs" of orchestrating the incoming class (fixed because one must keep up with one's peers/competitors).

Breneman adds a further layer of complexity—one that many private (and, increasingly, public) institutions are starting to employ: tuition discounting. Operating an institution under expected capacity ratios is a goal that requires the strategic enrollment and retention of student cohorts. Students possessing certain characteristics of value to an institution may receive a discount as an incentive to convert from an *admitted* student to an *enrolled* student. Many other authors have examined this practice and its subtleties (Lapovsky, 1998; Baum, 2000; Elliot, 1980; McPherson and Shapiro, 1998; & Russo, 2000). Early gains are often encouraging. However, enrollment management professionals need to understand the merits and drawbacks of tuition discounting, why to continue, and when to reduce discount rates. Experienced professionals learn how to perfect their efforts, recognizing that shifts in the marketplace are always occurring. Discounting is not a solution for all institutions and all situations. The collective work of Breneman (1994) and Lapovsky (1997, 1998) suggests that small and large colleges employing this strategy lie along a continuum where some institutions are doing well, some are probably breaking even, and others may be slipping, in part because of a large discount spread too broadly.

Revenue theories provide an important foundation for the work of enrollment managers. Professionals cannot afford to be anything less than experts on institutional values and budgeting processes on their campuses. They need to know the key sources of revenue and the major fiscal priorities. They need to understand the potential benefits and liabilities of tuition discounting. Finally, they should always keep in mind Bowen's laws of higher education finance.

Enrollment Management as Courtship

As early as 1984, Hossler cited a paper by Freeman in which the student recruitment process was compared with dating and courtship. Since then, Hossler and many of his co-authors have used courtship as a metaphor for many aspects of the enrollment management process (see, for example, Abrahamson and Hossler, 1990; Hossler, Schmit and Vesper, 1998; and Hayek and Hossler, 1999; Hossler, 2000a). Recruitment and retention activities are likely to succeed if they are conceptualized within "the Matchmaker Question": "How can prospective or current students think this campus would be a good fit?" If enrollment managers and their staffs think along the lines of courtship, they are likely to continually develop the most innovative recruitment and retention strategies.

Hayek and Hossler (1999) elaborate on this notion to discuss the roles of *timeliness* and *personalization*. Their study found that the likelihood that students would consider attending a particular college was related to the students' perception that the recruitment process was customized to meet their individual needs and interests. They also found that the timeliness of responses to requests for assistance and information positively influenced students' matriculation decisions. One student in their study indicated she had thought the institution "was really interested in me until the office of admissions took six weeks to respond to a request for information and then spelled my name wrong." The study concludes this hardly constituted courtship on the part of the university!

The authors further suggest that one of the best ways to convey a sense of courtship is to constantly seek ways to improve the degree of personalization and timeliness in all interactions with prospective students. The concept of courtship should be extended to student retention efforts. College students regularly re-evaluate their decisions to continue to attend. No institution should compromise its academic standards just to retain students. However, with respect to student life, student services, and out-of-class contact with faculty, a welcoming, personalized style of exchanges with enrolled students can enhance student persistence. The elements of courtship—timeliness and personalization—provide a clear conceptual road map to help guide enrollment managers' recruitment and retention efforts.

Students as Institutional Image

Many college administrators and faculty fail to realize the extent to which students who matriculate define the institutions at which they enroll. Many institutional descriptors derive directly from the characteristics of enrolled students. Words such as "small," "large," "selective," "non-selective," "diverse," "prestigious," "national," and "regional" describe how many students are enrolled, students' high school rank or test scores, whether students are drawn from throughout the United States or from areas close to the campus, and so forth.

In the last decade, the visibility and importance of college rankings and ratings has increased steadily. As McDonough et al. (1998) notes, rankings are big business. *U.S. News and World Report*, publications from Princeton Review, Petersons' guides, Fiske guides, and other rankings publications have become a visible part of the higher education landscape. The emergence of these publications has accentuated the direct relationship between currently enrolled and future students.

Current research suggests that rankings do not have a strong influence on middle-class and less affluent students considering attending public or in-state institutions. However, rankings do influence the decisions of more affluent students considering attending more costly and/or distant institutions. While most enrollment managers eschew rankings and wish they would "go away," they are unlikely to. In fact, their impact is likely to become more pronounced, not less.

As every experienced enrollment manager knows, regardless of rankings' actual impact and students' perceptions of an institution, rankings and ratings may have a direct impact on college presidents, boards of trustees, or faculty governance groups. This, in turn, can have a pronounced effect on the forces enrollment management units must address. Several recent articles discuss the impact of rankings on senior campus administrators' internal priorities (Hossler, 2000b; Marchung, 1995).

For all of these reasons, enrollment managers and other campus administrators can ill afford to ignore rankings publications. The students colleges and universities attract and enroll play a major role in defining the institutions. Enrollment managers need to constantly monitor their campuses' image and how it is affecting recruitment and retention efforts. In addition, shifts in the images of competitor institutions should be monitored because they can have positive and negative effects on enrollment management efforts.

The Academic Enterprise

The final conceptual framework all enrollment managers need to bear in mind is that they are working within a college or university setting. Institutions of higher education have many unique characteristics that exert a profound effect upon professional managers. As Cohen and March (1974) note, the goals and purposes of universities are unclear. There often seems to be no "bottom line" in an academic organization. This characteristic is particularly vexing for enrollment management efforts that have the appearance of being goal-driven. Enrollment managers want to know how many students of what ethnicity, with what average SAT scores, from how many states are we supposed to recruit. Getting clear answers to such questions is not as simple as it might seem. At institutions that are not highly selective, the answer often seems to be "as many good students as you can enroll—and make sure there are enough for us to meet our revenue goals." At highly selective institutions, the answer is often, "No more and no less than the 2,333 we have specified, but make them better and more diverse; and if more are full tuition-paying students, then that is even better." If an enrollment manager deviates from any of these instructions, she may find the campus dissatisfied with her efforts.

To make matters more complex, faculty at most universities are likely to evaluate an enrollment manager on the basis of two criteria embedded in this question: "Did you enroll more good students and fewer students overall so that my classes are smaller?" Senior campus administrators and deans may have a different and more complex set of criteria according to which they judge an enrollment management unit's success.

Academic organizations are highly decentralized. Faculty are accustomed to high levels of autonomy. This norm of decentralization and autonomy permeates non-academic units—including enrollment management units—and accentuates the lack of clear goals. It also creates an environment where enrollment mangers and their staffs have more independence than they might at a similar-sized for-profit organizations. The high level of autonomy and independence has positive and negative effects. Most administrators who work in university settings indicate that the degree of autonomy is one of the most rewarding parts of working in an academic setting (Austin and Gamson, 1983). Members of an enrollment mangers' staff may feel the same degree of autonomy, as may other senior and mid-level managers outside of the enrollment management unit. This can make it difficult for enrollment managers to move units within or outside of his organization in directions that would help achieve enrollment goals. Faculty, for example, are one of the sources of information most preferred by prospective students and parents. Student-faculty interaction outside of class also has a positive impact on student persistence. Developing incentives to involve faculty in recruitment and/or retention activities can be difficult. Student affairs administrators may believe they have no responsibilities in the area of student recruitment and may decline to be involved in related campus initiatives. Even a key office like financial aid, typically part of enrollment management organizations, may resist being part of an enrollment management plan or strategy.

Three decades ago, Baldridge (1971) described the political model of governance that is found on many college and university campuses. Baldridge noted that faculty participation in governance is erratic and fluid. Two faculty members can come together to be part of a coalition to support efforts to increase the number of high-ability students and yet be members of opposing coalitions on the issue of enhancing retention. On yet a third issue related to enrollment management activities, they may be totally disinterested. Successful enrollment management efforts require faculty support and involvement, but gaining and sustaining this support can be difficult. The goals and priorities of colleges and universities are simultaneously multiple, complex, contradictory, and illusive. In such an environment, it is often difficult for enrollment managers to know if they have been successful; did we reach our goals? Moreover, because many institutions are highly decentralized, it may be difficult to determine who—if anyone—cares when an enrollment management unit does achieve its goals! Consistently achieving enrollment objectives in this type of environment is not easy, but it is part of working in the college or university setting.

Using Theories and Concepts in Enrollment Management

In closing, we return to Bean's adage: There is nothing so practical as a good theory. To this we would add, "There is nothing so useful as a good theory or an empirically derived concept." Often, novice managers and new graduate students studying applied fields like higher education seem to be looking for a textbook, a senior manager, or a mentor to tell them "just how to do it." Rarely are such individuals satisfied with the response, "It depends." Yet in most instances, "It depends" is in fact the correct answer.

Theories and concepts can help enrollment managers think through the appropriate context and set of contingencies to determine the appropriate answer. Good theories and concepts provide experienced enrollment managers with hooks upon which they can hang their experiences. They provide a way of organizing an array of lessons learned so that enrollment managers can always stay even with—or perhaps one step ahead of—the competition.

Doubtless, there are other theories and concepts that can be used to help guide the plans and strategies of successful enrollment management efforts. From our perspective, however, these six—resource dependency theory; systems theory; revenue theory and revenue maximization; enrollment management as courtship; students as institutional image; and the academic enterprise—form the theoretical and conceptual foundations of the practice of enrollment management.

PART II

Operationalizing SEM

When SEM is reduced to its most basic element, it ultimately is about changing institutional culture. Many proven SEM strategies have yielded little or no results; many comprehensive SEM plans have gathered dust on a shelf; many knowledgeable enrollment managers have burned out or been taken out prematurely; and many institutions have paid consultants to audit their existing operations and provide a plan of action only to take no substantive action. Understanding the contextual framework described in Part One does little good unless the institution moves from theory to practice—and does so thoughtfully.

Managing change is a bit like managing the weather: It is mostly predictable within reasonable margins of error. But ask your local weather forecaster how it feels to predict a violent storm and encourage people to take appropriate precautions only to have the weather pattern shift without warning. Or try to change the weather forecast to meet the needs of the community or the well-laid plans of an organization. Like weather managers, enrollment managers often are unable to influence the elements; they are too powerful.

However, there are certain elements we can control (or, at least, influence). The chapters in Part II discuss models and strategies for managing change as you attempt to operationalize enrollment management. SEM can and should drive institutional change. But the journey is dicey, filled with twists and turns and with few guideposts along the way. Study carefully the change management concepts outlined in Part Two. They provide a roadmap that will guide you in your SEM journey.

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CHAPTERS 4, 5, AND 6 ▷

4

Moving from Theory to Action

Richard Whiteside

> "Far better it is to dare mighty things, to win glorious triumphs, even checkered by failure, than to take rank with those poor spirits who neither enjoy much nor suffer much, because they live in the gray twilight that knows neither victory or defeat."
>
> —*Teddy Roosevelt*

Introduction

Earlier chapters of this book describe the historical, environmental, and theoretical contexts of strategic enrollment management (SEM). The intent of these chapters is to expose the reader to the wealth of information needed to understand strategic enrollment management as if it were something akin to basic research: the pursuit of knowledge for the sake of the knowledge itself. As is often the case, basic research provides information used by those engaged in applied research—the effort to use knowledge to somehow alter or change the status quo. It is undeniable that the more one knows about the fundamentals of strategic enrollment management, the better one may be able to do the job.

Few of us, however, are retained simply because we are knowledgeable about the concepts and literature of enrollment management. Most of us are interested in the topic because our institutions expect us to apply the tools and techniques of enrollment management within our own organization. Therefore, in this chapter, the discussion moves from the theoretical to the

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applied domain. The focus is on using the theoretical underpinnings to create a program of action: to move from the basic to the applied.

Applied strategic enrollment management is more art than science. There are no immutable laws that apply to all institutions wishing to make use of the enrollment management approach. Some strategies and action approaches are more widely applicable than others. However, an approach used successfully by one institution may prove a dismal failure when implemented by another. How, then, should one go about initiating action that will be productive and effective within the context of a particular institution? What should the enrollment practitioner do to reduce the probability of false starts, wasted time, and disappointing outcomes? What actions will best bring about the desired result?

Overview

This chapter summarizes tools and techniques for making an effective transition from theory to effective practice. Some of the concepts are drawn from the literature of other disciplines, such as organizational behavior, organizational planning, political theory, etc.; others come from practical experience or raw intuition.

Effective enrollment management depends upon two things: doing the right things and doing things right. Consequently, successful SEM involves the skillful application of content knowledge and the thoughtful management of processes in a fluid, often confusing, environment that can be characterized as having diffuse patterns of responsibilities and accountabilities for outcomes. The practitioner seeks to apply techniques in a fluid, perhaps unstable, environment. What we seek to improve or alter changes in response to other unrelated dynamics as we apply our measured interventions. The situation is somewhat analogous to trying to hit a distant moving target with a rifle shot while the laws governing gravity and aerodynamics are themselves in transition.

This chapter therefore focuses on moving into action by gaining an understanding of the local context in which SEM will be practiced. We present a working definition of SEM and then examine techniques to assess the institutional environment, the identification of program goals, and SEM target markets. (Later chapters address individual enrollment management tools.) This chapter is dedicated to managing the transition process itself.

SEM Defined

Although several definitions of enrollment management are currently in vogue, Michael Dolence's definition (described in Chapter One of this book) captures the essential nature of strategic enrollment management: "Strategic Enrollment Management (SEM) is a comprehensive process designed to help an institution achieve and maintain the optimum recruitment, retention, and graduation rates of students where 'optimum' is defined within the academic context of the institution. As such, SEM is an institution-wide process that embraces virtually every aspect of an institution's function and culture" (Dolence, 1993). Key to the successful implementation of an enrollment management program is a complete understanding of the various components of Dolence's definition. Each component is significant.

"SEM IS A COMPREHENSIVE PROCESS"

Two important characteristics are presented in this portion of the definition: the comprehensive nature of SEM and the fact that SEM is not an event but rather a process. SEM has a wide scope and is by definition inclusive insofar as it involves virtually all aspects of the institution. *Comprehensive* also implies that the exercise of SEM involves the use of many different kinds of strategies and tactics. By characterizing SEM as comprehensive, Dolence warns that it is not an event that results in the institution realizing its enrollment objective; rather, it is a series of events or changes carried out over a period of time. Each event contributes to the outcome, but no single event "causes" it. The SEM practitioner is simultaneously involved in managing multiple events and changes. The events to be scheduled and the strategies to be employed vary by institution, but the comprehensive nature of the process is a constant across the entire spectrum of institutional types.

"TO HELP AN INSTITUTION ACHIEVE AND MAINTAIN"

This phrase indicates that the practice of SEM is valid even if the institution is where it wants to be with regard to its enrollment. Most (but not all) institutions desire to improve or enhance their overall enrollment performance. A fortunate few are exactly where they want to be with regard to enrollment. For these, the task is to maintain their position in a volatile and highly competitive marketplace. If they stand idle, they will most certainly, sooner or later, become a member of the group trying to enhance its enrollment performance.

"THE OPTIMUM RECRUITMENT, RETENTION, AND GRADUATION RATES OF STUDENTS"

This phrase contains a fundamental element of SEM, directing the practitioner to be simultaneously concerned with student admission, progression, and success. By linking these three items, Dolence characterizes SEM as an activity that cuts horizontally and vertically through an institution. SEM is not an "input" activity; rather, it is a system-wide activity concerned with input (recruits), process (retention of those recruits,), and output (successful completion of the recruits' learning objectives). This phrase also defines the highest-order program measures that are at the core of SEM assessment: admission, retention, and graduation rates.

"WHERE OPTIMUM IS DEFINED WITHIN THE ACADEMIC CONTEXT OF THE INSTITUTION"

Here the definition imposes limits on the number and kinds of persons to be recruited, enrolled, and retained. The objective is not to build as large an enrollment as the enrollment manager can imagine; rather, it is to build the "right" enrollment given the institution's academic resources and facilities. Too many participants can degrade an institution's ability to deliver a high-quality educational experience just as surely as too few participants will yield resources insufficient to permit the institution to deliver its current programs and services. The goal for the enrollment manager is to build the most favorable enrollment picture—one that allows the institution to maximize the quality of the experience it makes available to the participants. Use of the term "optimum" implies both quantitative and qualitative dimensions. Having the right *kind* of participants is just as important as having the right *number* of participants. The appropriate kind of participants will vary according to each institution's program array and mission. For example, it does an engineering institute little good to have a surplus of philosophy students in its recruitment pool. While the numbers may look great, the institution cannot deliver what the individuals want.

"AS SUCH, SEM IS AN INSTITUTION-WIDE PROCESS"

While the authority for managing individual SEM events may be assigned to a particular area within the institution, the ultimate success of the program depends upon the involvement of all areas of the institution. The various pieces of the institution must operate in harmony if SEM is to be completely successful. In a very real sense, the goals of the enrollment management program must be embraced by all of the various parts of the complex organizations we call colleges and universities.

"THAT EMBRACES VIRTUALLY EVERY ASPECT OF THE INSTITUTION'S FUNCTION AND CULTURE"

Successfully pursued, SEM will affect every institutional operation; little will remain untouched. In assessing what must be changed, one may encounter a few "islands of excellence"—operations that already appear to embrace the values implicit in the enrollment management approach. However, such islands will be few in institutions with significant enrollment problems. For these, the degree and depth of change required may be both challenging and painful. Culture can be defined simply as "the way we get things done around here" (Bower, 1966). Whether the enrollment picture requires enhancement or maintenance, the application of SEM strategies will alter the way things are done. In a mature, successful SEM implementation, the institution will have experienced a cultural shift. Such institutions will intuit that two key questions must be addressed almost daily:

- Does this change, program or service, policy, or activity contribute to or detract from our ability to attract, enroll, retain, educate, and graduate the kinds and numbers of students we desire?
- If this change, program or service, policy, or activity detracts from our ability to do this, is it appropriate to make the proposed change or to continue the program, policy, or activity?

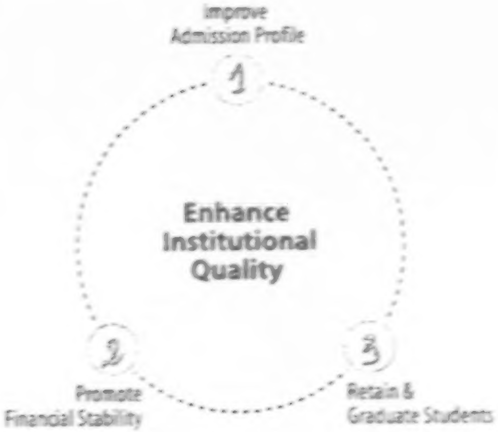
The institution that fully embraces SEM thinking will answer these questions, in one form or another, on a daily basis.

Though the shift appears simple, one should not underestimate the difficulty involved or the time required for a complex organization to adopt this kind of thinking. Cultural shifts within large organizations often take years to accomplish. Little research has been done to answer the question of how long it takes a college or university to adopt new cultural values, but experience tells us that few accomplish the shift in less than five years; some still struggle after ten years of concerted activity. The inescapable reality is that colleges and universities are among the slowest of all organizations to change. Exceptions to this observation are rare. It is possible to impose strategies and tactics on a "crash" basis—and some of these may even improve some enrollment measures—but use of a new technique should not be confused with the basic values and preferences—the culture—still in place within the institutional community.

Defining the SEM Agenda

Understanding what needs to be done is a critical element in the formula for a successful SEM implementation. While the specific goals and objectives of a strategic enrollment management program will vary by institution, the overarching mission objectives of SEM cut across the full range of institutions. Figure 4.1 summarizes the relationships among three key SEM goals: improve the admission profile; retain and graduate students; and promote financial stability and the enhancement of institutional quality (the core reason for SEM). SEM is an institutional enhancement technique—not an end in and of itself.

Figure 4.1


Improve Admission Profile
1
Enhance Institutional Quality
2
Promote Financial Stability
3
Retain & Graduate Students

Individuals and groups charged with the creation and execution of a SEM program must never forget that the acid test of the appropriateness and effectiveness of their strategies and tactics is whether these contribute to overall institutional enhancement. Is the institution a better place because of the introduction of strategic enrollment management approaches and thinking? If the answer is no, then

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the SEM program is ineffective, unsuccessful, and perhaps even unnecessary in its present form.

Setting the SEM agenda for a particular institution mandates that we address the "who," "what," "when," "where," and "how" dimensions of the SEM process. The answers to these queries will define what a particular institution desires from its strategic enrollment management program. Determining the answers may itself prove difficult. Different individuals within an institution may have very different perspectives: Some may believe that the fundamental need is for more students; others may believe that the only need is for better students; still others may not see any need at all. It seems safe to assume, however, that when an institution decides to implement SEM, someone with considerable clout within the institution has identified a problem that needs to be addressed. Those responsible for the SEM program must start with that individual's definition of the problem.

In institutions with a robust institution-wide strategic planning process, the key enrollment management objectives may already have been identified. Planning documents usually contain a wealth of institutional data, including assessments of the institution's strengths, weaknesses, competitive advantages, and environmental threats. Summaries of these data frequently are part of a SWOT (strengths, weaknesses, opportunities, and threats) analysis completed as part of the strategic planning process. Typically, what is in the strategic plan itself represents only a summary of much more extensive analyses and data available to those involved in writing the plan. A review of these antecedent reports will yield considerable insight into the rationale underlying the goals and objectives the institution included in its final plan. The enrollment manager must assess these documents in terms of their relevance to enrollment management activities and abstract those portions that define the context and goals of the enrollment management program.

An operational strategic plan greatly facilitates the task of defining the enrollment management agenda but is not prerequisite to implementing an effective enrollment management effort. In the absence of an institution-wide strategic plan, those responsible for enrollment can define the SEM agenda by asking a series of important questions: who, what, when, where, and how?

Who is our target population?

The term *enrollment management* implies that the focus of the activity is on people: those we seek to enroll and those we have enrolled. Thus, it is not surprising that most SEM programs first define themselves through an examination of the "who" question. Answering the "who" question involves formulating a description of the audiences at which SEM will be targeted. In asking this question, the enrollment manager tries to define the quantitative and qualitative characteristics of the desired student population: How many participants do we want? What kinds of participants are desirable? The kinds of students identified become the target market groups.

Delineating the institutional scope of enrollment management provides a useful insight into the specific focus of the enrollment management program. Figure 4.2 presents a simple way to define program scope within a complex, multi-level, institutional environment. Because a particular institution may wish to apply SEM approaches to some but not all portions of its enrollment, identifying those activities to which SEM will be applied will determine the nature of the strategies and tactics to be used. Simply put, this exercise defines the scope of the effort: Which student groups will be the focus of strategic enrollment management strategies and tactics? For example, a doctoral degree-granting university may want to use enrollment management approaches to enhance its undergraduate enrollment yet have no desire to use them at the graduate or professional level. Figure 4.2 presents a hypothetical breakdown of the student subgroupings for such an institution. Those cells containing the "EM" designation represent populations to which SEM approaches may be directed. Blank cells are target enrollment groups beyond the scope of responsibility or authority of those charged with implementing the SEM program.

Figure 4.2

Student Status	Continuing Education & Certificate	Undergraduate		Graduate		Professional	Other
		Associate	*Bachelors*	*Masters*	*Doctoral*		
Full-time	EM	EM	EM				
Part-time	EM	EM	EM				
Virtual							
Other							

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Addressing the quantitative aspect of the "who" question requires some agreement among key institutional leaders (e.g., president, chief academic officer, chief business officer, etc.) The final answer will depend upon a variety of factors, including the financial needs of the institution, the available facilities (residence halls, classrooms, laboratories, support facilities, etc.), the available teaching resource, and limitations that may be a matter of state or local policy. Given the kinds and number of persons involved, it is clear that determining optimum quantity is not solely within the domain of the enrollment manager. Enrollment managers can provide important input into the process of setting enrollment targets but must collaborate with appropriate parties to determine those targets. Such a determination is an institution-wide responsibility. In an effective program, those working in the enrollment management area will be intimately involved in such discussions. The enrollment management group may provide information related to facilities utilization patterns, market realities, teaching loads, class sizes, etc.—all of which help define the optimal enrollment for the institution.

The kind of students desired must be defined and agreed upon. Who is desirable, in terms of academic indicators (secondary school record, standardized test scores, etc.), areas of academic interest, diversity (geographic, racial, economic, etc.), and other relevant qualitative factors? These agreements should be expressed in quantifiable terms. Assigning numeric values runs the risk of criticism since the values assigned may be interpreted by some members of the community as "quotas." If this occurs, the discussion needs to be reframed so that the numeric goals are seen as desirable benchmarks toward which SEM activity will be directed rather than as absolute limits on the numbers of any one kind of student. In formulating these benchmarks, the institution is creating a desirable architecture for its enrollment. Once these goals have been articulated, they need to be evaluated in light of the institution's mission and other articulated goals. If the institution's mission and various subsets of goals are internally inconsistent, then one or the other must be changed.

What do we expect to achieve, and when?

Having defined the scope of the SEM program along the "who" dimension, the institution next needs to define the program along the "what" and "when" dimensions. Answers to these questions establish a SEM strategic and tactical agenda and a timeline for accomplishing the desired outcomes. Because SEM goals are rarely attainable in a single academic year, most programs set goals on a three- to five-year horizon, with each year's actual performance evaluated against the desired outcomes. Future goals are adjusted on the basis of these assessments. Goal measurements typically occur at fixed points in time that correspond to the ending points of various cycles of activity—for example, recruitment—for a specific term or attendance period. Of course, these outcomes do not accrue at the moment of measurement. They typically occur as the result of a process or series of activities occurring over some definable timeframe. Because many higher education business cycles occur on a semester or annual basis, it is useful for the enrollment management group to identify intermediate targets or checkpoints as a means of informing the enrollment managers as to whether or not the institution is progressing satisfactorily toward a major target. Comparative data (i.e., the situation as it stood at the same point in the cycle in each of the last several years) help define the context of this year's results.

The appropriate individual checkpoints will vary by institution and within an institution over time. For example, a two-year technical school operating with a large part-time, non-degree seeking student body may define very different checkpoints than a research university operating under a traditional fall term-only admission cycle. Such differences are unimportant. What is important is that they provide valid indicators of how well the particular institution is performing against its stated goals and overarching institutional mission. If the intermediate checkpoints allow the institution to accurately assess its progress toward stated goals, they are both valid and useful. (Such checkpoints frequently are called *key performance indicators* or *KPIs*.)

Figure 4.3 presents major enrollment management goals for a sample college (four-year, liberal arts). It includes goals in four major areas: the quantity and quality of the entering class; the important financial indicators associated with enrollment; the overall undergraduate enrollment; and the overall educational outcomes for the institution. These goals are presented on a multiple-year basis showing the base year (i.e., the state of affairs at the start of the effort) and the changes the institution hopes to realize. The underlying rationale—enrollment growth achieved primarily through a marginal increase in admissions and increased retention, qualitative increases in the admission profile,

Figure 4.3: SEM Goals—2001–2005

	2000*	2001	2002	2003	2004	2005
Applications	2,500	3,000	3,100	3,200	3,300	3,400
Accept %	62.5%	52%	49.2%	46.9%	44.7%	42.7%
Number accepted	1562	1562	1525	1500	1475	1452
Yield of accepted to enrolled	25.6%	28.8%	29.5%	30.0%	30.5%	31.0%
Number enrolled	400	450	450	450	450	450
SAT average	1105	1110	1120	1130	1140	1150
% from top half of class	47%	50%	52%	55%	57%	60%
# of transfer students enrolled	41	60	60	60	70	70
Total undergraduate enrollment	1276	1330	1375	1400	1425	1425
Cost of attendance increases	5%	4%	4%	4%	4%	4%
Average net revenue per enrollee	$17,700	$18,500	$18,800	$19,300	$19,800	$20,200
Discount rate *(total income/ institutionally funded aid)*	42%	41%	39%	38%	37%	35%
Total net revenues *(in millions)*	$22.6	$24.2	$25.8	$27.0	$28.2	$28.8
Freshman to sophomore retention	83%	84%	85%	86%	87%	88%
Sophomore to junior retention	72%	73%	74%	76%	77%	80%
5-Year graduation rate	68%	69%	70%	72%	73%	74%

* 2000 was the Base Year.

and increased student-related net revenues—represents the strategic portion of the enrollment management program. The goals are broadly based, critical to the nature and character of the institution, and representative of activities considered "mission critical."

Figure 4.4, on the following page, provides an example of what this college might use as admission and recruitment key performance indicators (KPIS) to assess its progress toward the strategic objectives and goals recorded in Figure 4.3. (This set of KPIS is presented for illustrative purposes only and is not intended to imply that it has more merit or provides greater utility than any other group of similarly constructed checkpoints within the context of a particular institution.)

Additional KPIS would be developed for other SEM activity areas within the strategic goal set shown in Figure 4.3. These would include areas such as retention, progress toward degree objective, etc. KPIS assist in assessing success at the tactical level: Are our activities producing the desired results as of this point in time? Careful analyses of valid KPIS enable the enrollment manager

Additional Notes Regarding SEM Goals

(1) Applications are projected to increase beyond 3,400 after 2005.

(2) The ultimate goal for quality indicators is to have an SAT average of 1200, with 70 percent of enrolled freshmen drawn from the top 10 percent of their graduating high school class.

(3) Total enrollment is projected to stabilize at 1,425 annually.

(4) The discount rate will remain at 35 percent after 2005.

(5) The graduation rate is projected to increase to 80 percent by 2010.

(6) Cost of attendance increases will be reviewed and adjusted annually in light of changes in the Consumer Price Index (CPI) and the Higher Education Price Index (HEPI).

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to determine whether the program is on course and make it possible to initiate mid-course corrections, if necessary.

Figure 4.4: Sample Key Performance Indicators (KPIs)

Goal/Measure	Goal	To Date	Variance	Year 1	Year 2	Year 3
Freshman class target end of cycle	450	202	(248)	400	400	400
Total commitments to date	–	202	–	174	160	166
Prospects (purchased names)	15,000	15,602	+602	13,000	11,500	12,000
Inquires from prospects	3,000	3,600	+600	2,800	2,400	2,300
Yield—prospect to inquiries	20%	23.1%	+3.1%	21.5%	20.9%	19.2%
Inquiries—other sources	2,000	2,200	+200	1,821	1,562	1,655
Total inquiries	5,000	5,800	+800	4,620	3,962	3,955
Total SAT/ACT scores received	3,500	3,000	(500)	2,820	2,771	2,628
Application goal—total	3,000	–	–	2,500	2,500	2,500
Applications—total to date	3,000	1,852	(1,388)	1,322	1,228	1,196
Yield—inquiries to application	60%	28.1%	(31.5%)	28.6%	30.9%	30.2%
Applications—early decision	200	235	+35	170	182	166
Regular decision applications	2,800	1,617	(1,183)	1,099	1,138	966
Total App, top 10% of class	400	310	(90)	400	400	400
Total App, SAT > 1100	1200	950	(250)	822	911	876
Total App. average SAT	1120	1133	+13	1106	1090	1085
Total App. out of state	500	612	+112	451	406	392
Total App. underrepresented GRP	600	404	(196)	361	344	303
Total App. male	1,600	803	(797)	649	723	677
Total App. female	1,400	1,049	+49	673	505	519
ED accept rate	80%	82%	+2%	77%	86%	85%
ED accepts	160	193	+33	131	157	141
ED yield—accept/commitment	90%	93%	+3%	88%	89%	89%
ED enrollments	144	180	+36	115	140	126
Reg. Dec. accept rate	50%	49%	(1%)	56%	58%	59%
Reg. Dec accepts	1,400	804	57%	722	698	676
Reg. Dec. yield accept/enroll	22%	–	–	21%	20.5%	21%
Average aid per enrollee	$11,000	$9,500	($1,500)	$10,775	$10,130	$10,300
Average net revenue per enrollee	$18,500	$20,500	+$1,500	$17,667	$17,038	$17,223

As the scope of SEM efforts broadens, the number and variety of key performance indicators likely will increase. A KPI set for a multiple campus, multiple college residential university with graduate and professional schools would involve many additional checkpoints. While a small set of KPIs may be

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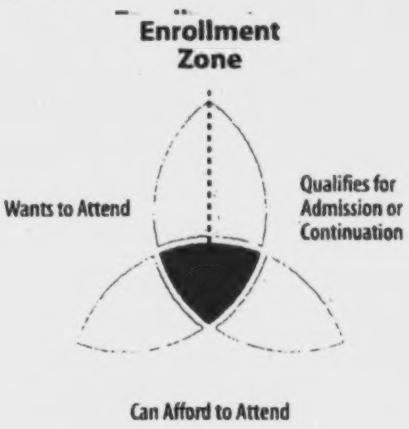
compiled periodically using paper and pencil, large KPI sets may require some information systems support so they can be made available on a timely basis.

Where do we need to intervene to achieve our goals?

Having defined "what" needs to be done, the institution then needs to determine "where" SEM interventions are most likely to make a substantive difference. Because a strategic enrollment management approach cuts across all phases of prospective students' interaction with the institution, interventions can—and most likely will have to—take place in a variety of activity areas. Understanding where to make high-impact SEM interventions requires careful analysis of the basic factors affecting enrollment decisions as well as the nature of the "flow" of interactions between prospective students and the institution.

Initial and continued enrollment is contingent upon three basic interdependent conditions (see Figure 4.5). First, students must want to attend. The number of individuals wanting to attend is a function of the institution's academic offerings, perceived reputation in the marketplace, perceived value in the marketplace (a quality/price judgment made by the buyer), and degree of visibility in the marketplace. Consequently, demand can be managed by an institutional choice to manipulate these factors. The changes required of an institution to increase its market demand mandate the involvement of those responsible for academic program delivery and development, institutional finance, institutional marketing, external relations, government relations, and public relations.

Figure 4.5



Of course, only those who qualify for attendance will eventually attend. Who qualifies is typically (but not always) determined by the academic policies adopted by the institution. (Some institutions also may have to deal with the

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reality of enrollment limitations imposed by coordinating agencies and governing boards.) The logical outcome of an institutional choice to adhere to a highly selective admission policy is a smaller pool of eligible students. (The size of the potential enrollment pool can be increased by manipulating the admission standard or by seeking relief from limitations imposed by coordinating agencies, but few institutions are willing to do either.) Admission requirements more closely aligned with national averages for performance in the various aspects of the preparatory educational experience will yield a larger pool than standards that can be met by only 10 to 15 percent of the college-going population. Counterbalancing the temptation to capture a larger portion of the pool by adopting more liberal admission standards is the reality that such a modification may adversely impact the institution's reputation in the marketplace, thereby reducing the number of students who "want to attend." Such a change may be politically untenable and create a greater problem than that the institution sought initially to resolve. Tackling government agency-imposed enrollment limitations requires the institution to negotiate the desired changes with individuals who may have an agenda (e.g., the enrollment health of other publicly supported institutions in the same system) broader than that of the individual institution. Such negotiations bring the institution into the political arena, an uncomfortable and unfamiliar playing field.

The remaining requisite condition for enrollment is affordability. Students cannot enroll—even if the two preceding conditions are favorable—if they do not possess resources sufficient to cover the projected cost of attendance. As the cost of attendance increases, the size of the pool capable of providing sufficient financial resources from their own earnings and assets declines. Two related concepts are of importance: The *stated price* for services (tuition, fees, etc.) and the *actual cost* realized by the student are powerful determinants of whether a student will be in the enrollment pool. The stated price may deter some otherwise qualified students from seeking to enroll. "Sticker shock" is a reality for many families, and they will make enrollment decisions based on their ability and willingness to pay the published amount. Those with sufficient resources may decide the institution simply costs too much and that even though they could afford it, they are unwilling to. Families lacking the needed resources may self-select out of the pool because they cannot see any possibility of financing higher education.

The higher education buying behavior of those who do pursue admission is a function of two powerful interdependent variables: willingness and ability to pay. The interactive nature of these variables is shown in Figure 4.6.

Institutions can manipulate enrollment behavior by keeping price low, providing need-based financial assistance to those who are willing but unable to pay, and/or by providing non-need-based financial incentives (e.g., merit scholarships, etc.) to those who are able but unwilling to pay. The last strategy is directed toward changing the value decision made by the individual: the student may be unwilling to attend if the cost is $20,000 but perfectly willing to attend if the cost is $10,000. The use of financial aid to "leverage in" enrollments is commonly referred to as *financial aid leveraging*. While this approach can be effective for those in the application process, it has no impact on those suffering from sticker shock unless the institution takes the initiative to inform prospective students that there may be a significant difference between *price* (stated fees) and *cost* (the fraction of price actually paid by the student.)

Figure 4.6: Interaction of Willingness and Ability to Pay

Ability	**Willingness**	
	Willing	*Unwilling*
Able	Willing & able (Enrollment condition satisfied)	Able but unwilling (Enrollment condition unsatisfied)
Unable	Willing but unable (Enrollment condition unsatisfied)	Unable and unwilling (Enrollment condition unsatisfied)

Source: USA Group Noel-Levitz, Inc.

These three factors are at work during all phases of prospective students' interaction with the institution, from the point of cognition through the point of completion of learning objectives (continuous enrollment through graduation). The various interaction levels are somewhat sequential insofar as one level of activity leads to a binary decision point with regard to the next level of interaction. For example, a prospective student must choose whether to inquire about the possibility of admission at a given institution. An applicant who has been accepted must choose whether or not to enroll. The three primary requisites—desire, eligibility, and financial capability—are in play at every level of interaction. Consequently, SEM strategies structured to address these conditions can be applied at any point during the flow of interactions, the intent being to enhance carryover from the previous interaction level (that is, to increase retention).

Figure 4.7 depicts enrollment management as a retention activity. In this framework, SEM involves either maintaining or improving an institution's relative share of the people in a group (the fraction of those admitted that eventually enroll.) An analysis of the institution's performance at each level, relative to that of its competitors and national norms, will help the institution determine where improvements are most needed. For example, an institution with an unusually low yield of applicants from inquiries might want to design SEM interventions to increase that yield. Conversely, an institution with a very large number of inquiries might want to know more about why so many prospective students express an overt interest in attending. Understanding why this is the case can provide valuable insight into the perceived strengths of the institution.

The shaded portion of Figure 4.7 represents the area in which the institution can improve its performance; the unshaded area represents the current state of affairs. Current performance in a given activity (e.g., number of applicants) may or may not be acceptable to the institution. Even if acceptable, such performance cannot be ignored: The institution's position must be maintained. In an increasingly competitive enrollment environment, maintenance requires more than merely replicating what has been done in the past. Keeping one's place may require the use of aggressive SEM techniques.

Each interaction level needs to be examined in detail to determine where the institution needs and wants to intervene. Those responsible for enrollment management programs must provide data that show the institution's relative performance level in each area. This involves analysis of current performance and a comparative assessment of the institution's performance with its competitors and national norms. Institutional performance can be measured by calculating the yield percentages for each interaction stage. Yield, for this purpose, is the percentage of the pool in the preceding interaction level that moves to the next interaction level. (An excellent source of national benchmark data is published every two years by USA Group Noel-Levitz, Inc.) Low yield rates at any level may indicate a need for SEM intervention.

The appropriate "strategy sets" to be considered for various interaction levels also are shown in Figure 4.7. An institution with high name recognition (i.e., a large pool of prospective students who are aware of the institution) that is experiencing an unacceptably low number of students inquiring about admission

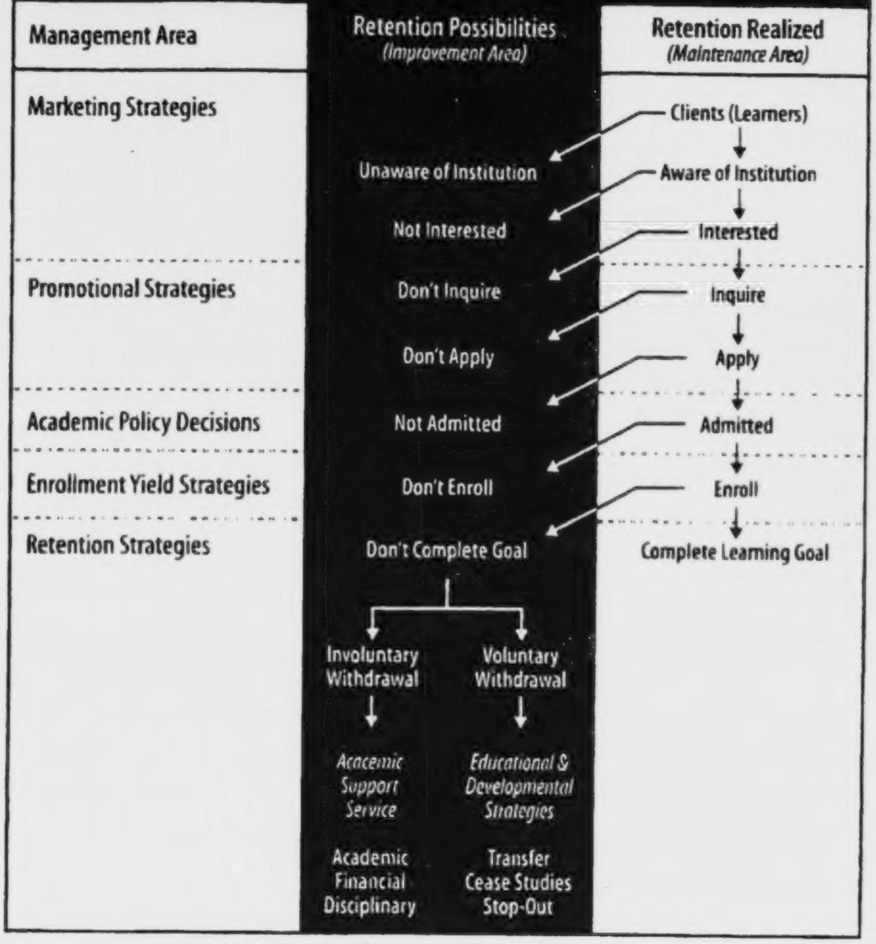

Fig 4.7: Enrollment Management as Retention

Management Area
Retention Possibilities
(Improvement Area)
Retention Realized
(Maintenance Area)
Marketing Strategies
Promotional Strategies
Academic Policy Decisions
Enrollment Yield Strategies
Retention Strategies
Clients (Learners)
Unaware of Institution
Aware of Institution
Not Interested
Interested
Don't Inquire
Inquire
Don't Apply
Apply
Not Admitted
Admitted
Don't Enroll
Enroll
Don't Complete Goal
Complete Learning Goal
Involuntary Withdrawal
Voluntary Withdrawal
Academic Support Service
Educational & Developmental Strategies
Academic Financial Disciplinary
Transfer Cease Studies Stop-Out

might want to examine its existing marketing and promotional strategies. Such an examination might reveal that the institution has the wrong product (underdeveloped program offerings), the wrong pricing structure, or an erroneous understanding of who is interested in the existing product at the current price. Once the causal factors have been identified, the enrollment manager can begin the difficult job of planning the changes necessary to correct the situation.

Typically, this analysis yields a large number of issues that can and should be addressed. Some will be easy to address; others will be extremely complex and will involve a high degree of difficulty. For example, while it may be relatively simple to overhaul an institution's promotional strategy, it is considerably

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more difficult to revamp the product (the educational programs and services) it promotes. Nevertheless, it is the sum total of the issues to be addressed that forms the SEM agenda for a particular institution. Some issues can be resolved almost simultaneously with their identification. Others will require formulation of a plan encompassing several years of work. As a result, enrollment managers will have both immediate and long-range objectives and opportunities. Those that can be achieved quickly should be achieved quickly. Those that require significant lead-time should be carefully planned and managed.

How do we make our interventions?

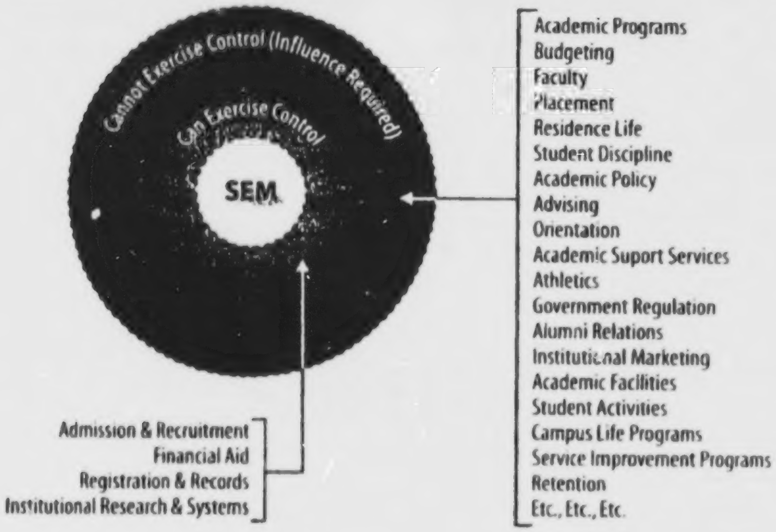
Given the breadth of institutional activity that shapes enrollment, it is apparent that no single person or group is likely to be granted full license to overhaul all of the areas and operations that may need to be changed in order to optimize enrollment. Although some key operations can be tightly controlled, others cannot. The list of operations over which the enrollment manager can exert immediate control will vary both by institution and the organizational structure it chooses to adopt for the purposes of managing its enrollment program. (For a complete discussion of SEM models of organization, see Chapter 7.) What is key is the realization that the level of control over important determinants of the success of the SEM effort will vary significantly across and within institutions.

Figure 4.8 presents this concept in a binary fashion: activities which can be tightly controlled are plotted in an inner region while those activities, functions, and processes that cannot be tightly controlled are plotted in an outer region. The plot for any given institution may look very different, but a large region of institutional activity over which the enrollment manager will have little or no control will always exist.

Those responsible for SEM initiatives must exercise both control and effective influence in order to achieve the desired enrollment outcomes. In this regard, enrollment management is more art than science. It requires the skillful application of knowledge and information in a fluid environment.

Effective enrollment managers will undertake an analysis of the changes that need to be made (the results of having addressed the "what" and "where" questions) and formulate a strategy for determining how effective influence may be employed in those areas over which direct control cannot be exerted. Such an analysis begins with a study of the institution's formal and informal

Fig 4.8: SEM Control & Influence Regions


Cannot Exercise Control (Influence Required)
Can Exercise Control
SEM
Academic Programs
Budgeting
Faculty
Placement
Residence Life
Student Discipline
Academic Policy
Advising
Orientation
Academic Suport Services
Athletics
Government Regulation
Alumni Relations
Institutional Marketing
Academic Facilities
Student Activities
Campus Life Programs
Service Improvement Programs
Retention
Etc., Etc., Etc.
Admission & Recruitment
Financial Aid
Registration & Records
Institutional Research & Systems

decision-making structures. How are agendas formulated, and how are decisions made? Among the important questions are:

- Who has the power to decide?
    - What governing groups authorize or validate decisions?
- How are decisions really made?
    - Whose opinion does the community respect?
    - Is, and at what level is, the decision-making process collegial?
    - Who are the vocal minorities?
    - Who appears to embrace the necessary changes?

The enrollment manager uses the answers to these questions to create a strategy for moving ideas from conception to adoption. This requires skill and careful attention to the dynamic underlying each intervention because the answers to the questions will differ according to each change the enrollment manager seeks to make. For example, if a change is desired in the way student orientation is conducted, the involved parties may include student affairs, academic advisors, academic support services staff, etc., whereas a change in academic program offerings would involve the faculty, deans, those responsible for financial affairs, etc. The relative levels of involvement and the decision-

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making structures for these two changes may be quite different and therefore may require different approaches if each proposed change is to be effectively realized. (This does not imply that those individuals involved in the orientation change proposal are unconcerned with the proposed change in the academic programs, or vice versa.) One change may be attainable by the careful exercise of control (i.e., the overhaul of orientation) while the other may require consummate skill in the exercise of influence.

In addition to understanding the internal environment, it is useful to have some basic information about the institution's position in the marketplace. This requires market research and competitor analysis. Figure 4.9 presents a sampling of the research analyses the enrollment manager should have available.

With the SEM agenda set and the desired changes identified, the enrollment manager begins the difficult task of effecting the necessary changes. Enrollment management is by definition an active endeavor.

Figure 4.9: Key Research Questions for Enrollment Managers

Market Related Questions	Competitor Analysis Questions	Our Place In The Market
What are the design and photography preferences of the target markets?	What other institutions are also recruiting in our target markets?	What is the perception of the institution in the market?
What are the media habits of the target market?	What products are our competitors offering?	What do our current students think of us?
What are the product interests of the market?	What do our competitors charge?	Who influences the buying decisions of the target market?
What is the nature and the characteristics of the individuals who make up the target market?	What communication mechanisms do our competitors use: content, distribution timing, etc.?	What is the price/value perception of the members of our target market?
What are the expectations of the buyers?	What do the members of our target market think about our competitors?	Which institutions do members of the target market think are like us?

Summary

Moving from enrollment management theory to action requires the practitioner to fully appreciate the nature of the enterprise described in Dolence's definition of enrollment management. Answering the key questions—"who," "what," "when," "where," and "how"— is prerequisite to establishing a successful enrollment management program. The adage "You can't get there unless you know where you are going" is a fundamental precept of enrollment management. But knowing what needs to be done is not sufficient. Implementing enrollment management thinking and techniques requires understanding the dynamics underlying change—the process, resistance, conflict, and leadership. Once this has been accomplished, the enrollment manager can determine the shape of the enrollment management organization and the tactics that can be applied to address the institution's enrollment concerns. While it may be easy to identify the "right things to do," it often is considerably more difficult "to do them right."

5

Models for Successful Change

Richard Whiteside

Introduction

Chapter Four introduced a number of techniques and tools designed to help the enrollment manager define the scope of the SEM program within the institution. Having identified the SEM objectives, the enrollment manager must move to implement programs of action that will change the existing institutional environment and achieve the agreed-upon goals. Simply knowing what needs to be done is not enough. Action must be taken to change the status quo. But change itself, regardless of the type of change being made, represents a process to be planned and managed. Such oversight requires considerable skill and sensitivity.

"Any change, even a change for the better, is always accompanied by drawbacks and discomforts."

—*Arnold Bennett*

"God grant me the serenity to accept the things I cannot change, the courage to change the things I can, and the wisdom to know the difference."

—*Reinhold Niebuhr*

The change process involves a number of interrelated components. Smith (1996) plotted the various change steps as shown in Figure 5.1. It does not matter which comes first, but effective change will occur only if the organization both understands that it must change and develops a strong desire to change. In addition to understanding and desire, individuals and groups within the organization must possess a minimum ability to "make change happen."

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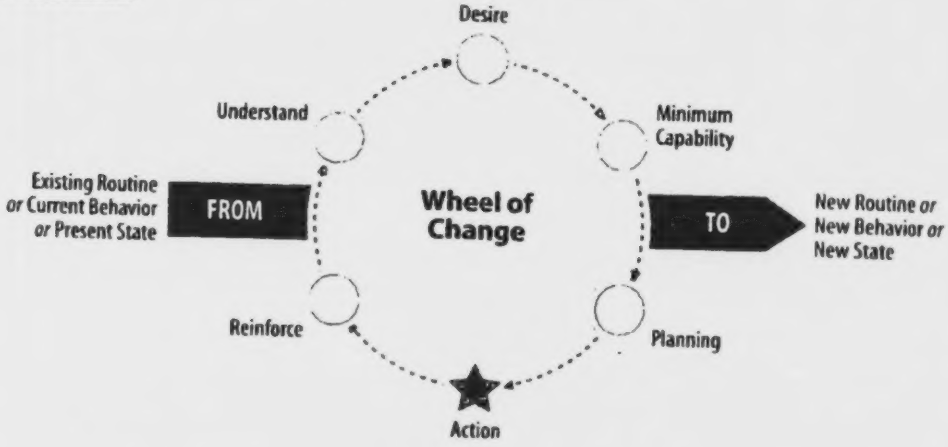
Figure 5.1


Desire
Understand
Minimum Capability
Existing Routine *or* Current Behavior *or* Present State
FROM
Wheel of Change
TO
New Routine *or* New Behavior *or* New State
Reinforce
Planning
Action

The change process does not end once action has been taken. Those responsible for effecting the change must make ensure that the desired new behavior is reinforced, lest those involved regress to a more familiar, more comfortable way of doing things.

Chapter Five presents tools and concepts that can be used in each of these phases.

Introducing SEM Changes

The level of SEM success experienced by an institution is directly related to the level of understanding of the change process possessed by those charged with managing the SEM program. Simply defined, SEM seeks to change the behavior of the institution as a whole; to transform the institution with respect to its sensitivities about what makes it an attractive initial and continuing enrollment alternative for learners who can choose from among many providers of educational services.

Kotter (1995) provides guidance on what must be done to successfully transform a large organization. In his article "Leading Change: Why Transformations Fail," he identifies eight key strategies for making successful transitions. Kotter notes that failure to effectively address each of these steps is the core reason that many large-scale transitions fail. Each step needs to be carefully assessed in order to ensure a successful change effort. Kotter's steps and the activities associated with each are summarized in Figure 5.2.

Figure 5.2: Eight Steps To Transforming Your Organization

Step	Action
1 Establish a sense of urgency	Examining market and competitive realities Identifying and discussing crises, potential crises or major opportunities
2 Form a powerful coalition	Assembling a group with enough power to lead the change effort Encouraging the group to work together as a team
3 Create a vision	Creating a vision to help direct the change effort Developing strategies for achieving that vision
4 Communicate the vision	Using every vehicle possible to communicate the new vision and strategies Teaching new behaviors by the example of the guiding coalition
5 Empower others to act on the vision	Getting rid of obstacles to change Changing systems or structures that seriously undermine the vision Encouraging risk-taking and nontraditional ideas, activities and actions
6 Plan for and create short-term wins	Planning for visible performance improvements Creating those improvements Recognizing and rewarding those employees involved in the improvements
7 Consolidate improvements and produce still more change	Using increased credibility to change systems, structures, and policies that don' t fit the vision Hiring, promoting, and developing employees who can implement the vision Reinvigorating the process with new projects, themes, and change agents
8 Institutionalize new approaches	Articulating the connections between the new behaviors and corporate success Developing the means to ensure leadership developments and succession

Hersey and Blanchard (1972) provide a useful analysis of the organizational change process with respect to the level of time and difficulty involved. They define change as a "modification of individual and group behaviors." Figure 5.3 shows the time and difficulty relationship charted against various types of behavioral changes.

As Figure 5.3 makes clear, accomplishing a "knowledge" change requires relatively little time or effort. Organization-wide behavioral changes are characterized by a high degree of difficulty and require more time to accomplish. Giving information to an individual changes the individual's knowledge base. Once the individual possesses the information, he forms attitudes or beliefs about that information, which in turn determine how the individual behaves. Group and organizational changes result from the modified behavior

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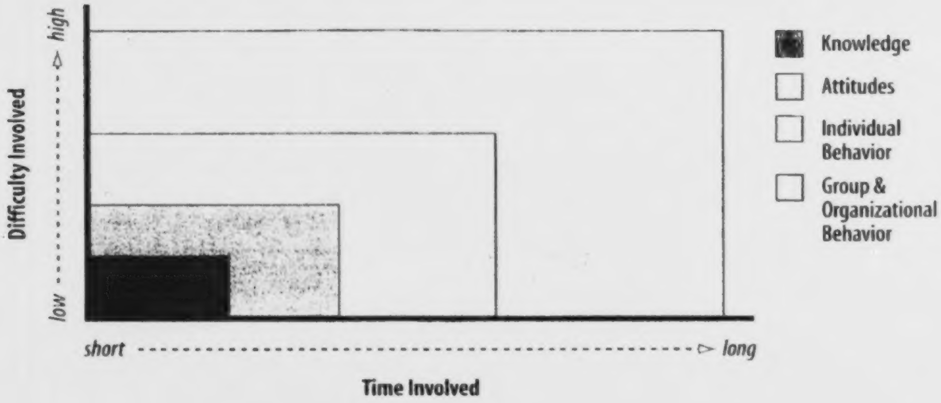
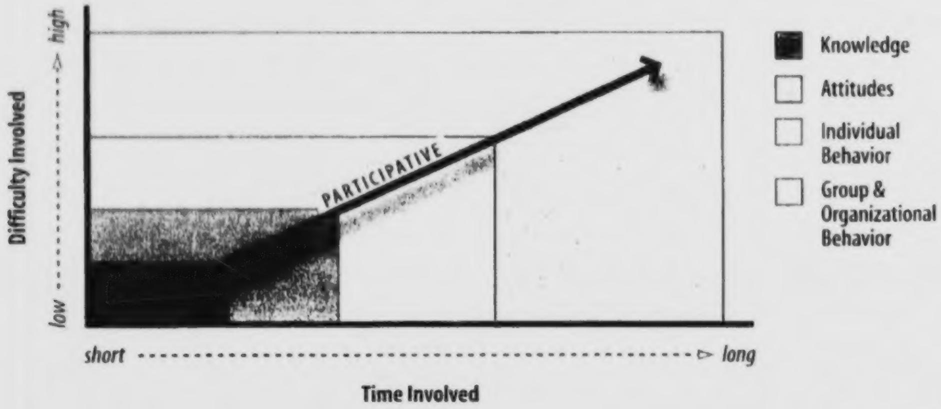
Figure 5.3



of individuals operating in contact with one another. An individual trying to introduce a planned institution-wide change must carefully manage this process in order to realize success. (Of course, some changes are unplanned and therefore unmanaged, but such changes are not part of what the enrollment manager sets out to do when the SEM program is established.) Careful management of the processes described in Kotter's list of steps can facilitate institutional reorganization.

Most change efforts within the college and university environment follow what can be described as a *participatory approach* (Figure 5.4). In this approach,

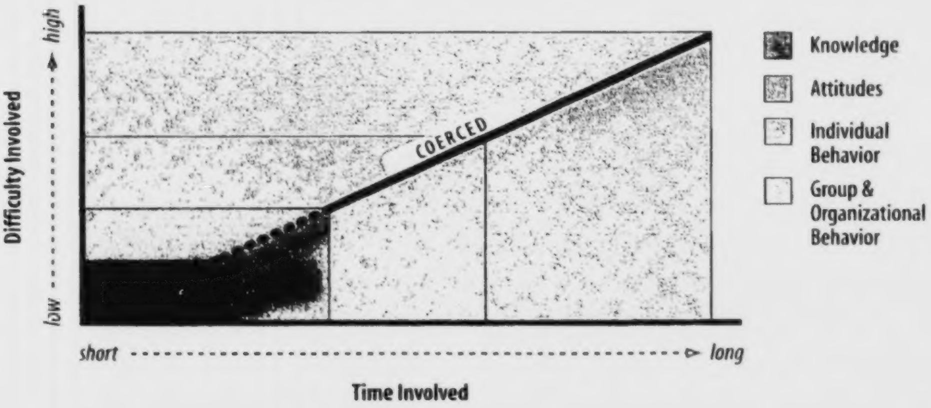
Figure 5.4



the enrollment manager serves as a teacher, introducing new SEM knowledge to individuals in the hope that they will form positive attitudes about the proposed change and act to embrace it. This approach is appropriate when the institution has the luxury of time to make the change; it is absolutely necessary when the proposed change is in an area or function over which the enrollment manager has little or no control (e.g., academic programming.) If the change is adopted using this approach, support usually is broad-based, and the change tends to be long lasting. The participatory approach involves the enrollment manager in dealing with the various interlocking pieces of the institution's formal and informal governance structures.

Some institutions may not have the luxury of ample time to make needed changes. In these situations, the necessary changes must be mandated and the associated behavioral changes coerced (Figure 5.5). The clear advantage of utilizing the *coerced approach* is that change can be accomplished quickly; those responsible for accomplishing the change are concerned only with group behavior. No attention is paid to any individual's knowledge base or the management of attitudes that may arise from the acquisition of knowledge. The focus is solely on changing what the group does. Unfortunately, change introduced in this way may not be fully supported by the people involved and therefore is likely to remain in effect only for as long as the coercing force is applied. Despite the focus of this approach on the behavioral change of the group, individual participants nevertheless will form attitudes about what is

Figure 5.5



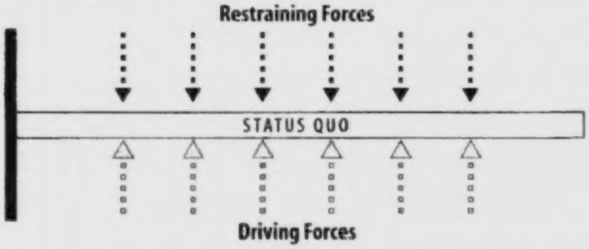
happening. And because change has been imposed on them, they may not develop the positive attitude toward the change that often arises when the participatory approach is employed.

The coerced approach has a greater chance of being successful if it is employed in functions and areas over which the enrollment manager has a considerable degree of control and formal authority. For example, a change in the content of recruitment publications may be achievable simply by mandating the change. As the enrollment manager's degree of control decreases, the probability of success using the coerced approach also decreases.

Any effort to affect change is likely to be resisted—particularly in higher education. In general, the participatory approach will incur less resistance than the coercive approach, but both approaches can—and often are—resisted. Resistance stems from two sources: environmental constraints and personal preferences. A change effort may be resisted because individuals believe that unfavorable environmental factors are at work or that resources are insufficient to accomplish the change. These individuals otherwise may favor the change and typically can be influenced to support it once they are convinced that sufficient resources are or can be made available.

Kurt Lewin (1947) provides a simple but effective tool for assessing environmental constraints. He suggests that the status quo (the current level of performance) is the result of the dynamic balance between those forces seeking to elevate the status quo and those restraining the desired elevation of the status quo. Thus, the forces that drive a desire to increase enrollment (e.g., need for additional resources, critical mass, etc.) are counterbalanced by those forces keeping enrollment down (e.g., market factors, cost, etc.). Figure 5.6 presents Lewin's "force field analysis."

Figure 5.6



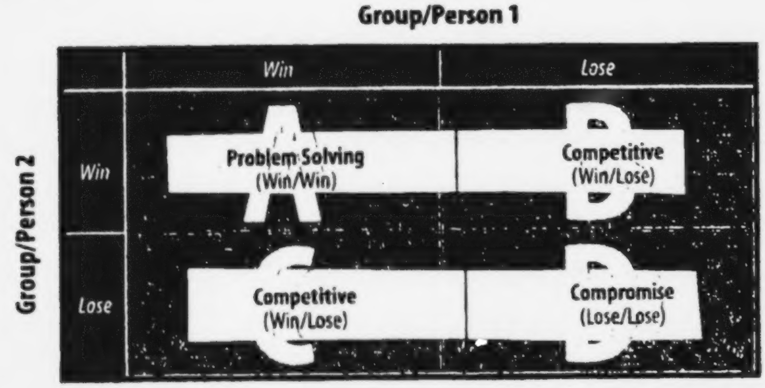
Lewin's tool is simple to use: The forces restraining change are identified and recorded, as are the forces motivating change. Moving the status quo can be accomplished by increasing the driving forces, decreasing the restraining forces, or doing both simultaneously. If the driving forces are increased without some corresponding decrease in the restraining forces, then change may occur—but the system is put under greater tension. Gradually reducing the restraining forces while slightly increasing the driving forces is likely to achieve the best result. (Reducing restraining forces in the higher education environment often involves applying incremental resources—dollars and people—to the problem.) Thorough analysis of the driving and restraining forces enables the enrollment manager to identify which forces can be manipulated. For example, if the size of the market is found to be a restraining force, the enrollment manager will understand that no existing enrollment management tool is likely to alter that fact. On the other hand, if market penetration is the restraining force, the enrollment manager can take action to reduce the impact of this variable by increasing market penetration activities.

Lewin identifies three phases of change. First, the individual or group needs to be readied for the change. Problems associated with the present condition are documented and presented to the involved parties, and information describing the proposed change is introduced. The underlying rationale is explained and perceived benefits discussed. All of this is preparatory to implementing the change and is identified by Lewin as *unfreezing* the individual or group. Once this has occurred, the actual change can be introduced. New resources, policies, procedures, or technologies are applied to the problem, with the expectation of a different outcome. Lewin labels this the *changing* phase. Once a change has been introduced, the challenge becomes sustaining it—making it routine. This involves validating the change by measuring the outcomes, sharing the results of success, and repeating the change. This represents Lewin's third step: *refreezing* behavior in the revised changed environment.

Some will resist change because they perceive it as threatening. Whether mild or severe, resistance slows the rate at which new behaviors are adopted. Those charged with implementing change often do not fully appreciate the underlying causes of the resistance they face. Perhaps the most basic explanation of resistance is that no matter how undesirable the current state of affairs, some individuals actually benefit from the status quo and risk some loss if it is altered. Thoughtfully considering how a person might benefit from the current situation and what they might lose if some change were introduced can inspire ideas about how to effectively involve such an individual in the change process.

In its simplest form, resistance to change or conflict arises from one issue: will I have to do this your way, or will you do it my way? This dynamic can be graphically illustrated in a two by two matrix as shown in Figure 5.7. As illustrated, there are four ways that the conflict may be resolved. In quadrants B and C one party wins and the other party loses. While the winner may feel good about the process, the losers most certainly do not. The losers often develop a good deal of resentment toward the individuals who won as well as those who supported them. In quadrant D, both parties lose. This is the predictable outcome of long-term unresolved conflict between individuals or groups. Eventually, both are forced to compromise; to give up something they did not want to give up. This can be described as "doing it somebody else's way." In this scenario, participants all feel somewhat bruised by the process. In quadrant A, the true problem solving approach, both parties get what they want. It can be described as "doing it our way." Win/win solutions don't require either party to give up something. These solutions do require the parties to develop solutions that all can fully support.

Figure 5.7



The key to creative win/win solutions lies in addressing the issue of what a person or group has to lose by adopting the change. If they see that there is more to be gained than lost, the energy fueling the conflict dissipates and the energy driving the change is increased.

The greatest threat to successful change is a belief that change is impossible. This is a particularly serious condition in higher education. Critics observe that

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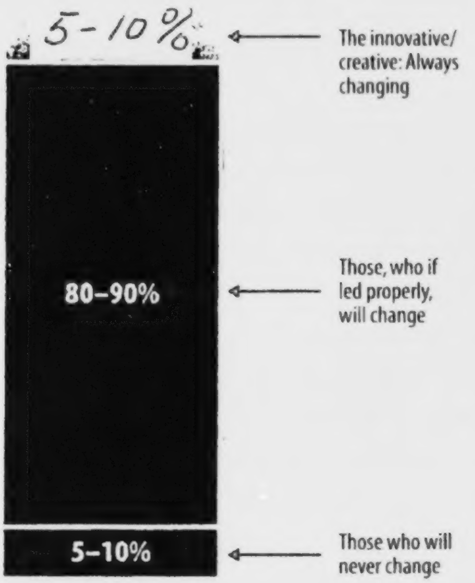
responsibility and authority are too diffuse; participants are too narrowly focused; and that the very mission of higher education—to create and preserve knowledge—make change in this environment a frustrating and unproductive endeavor. This is much too pessimistic an outlook. R.S. Morthy provides a useful analysis of the problem. Morthy identifies three classes of individuals in the organization (see Figure 5.8.)

The analysis reveals that only a small percentage of individuals are, by nature, constantly primed for change. Likewise, any organization contains a small percentage of persons who will not and cannot change. They are permanently frozen in place. The former are always key players in institutional change efforts. The latter always resist change. Between these two groups there is a large group of persons who will change if they are properly led through the change process. If they experience poor change leadership, they will, at best, remain uninvolved. If leadership is particularly poor, they will become active resisters. Given this distribution it is apparent that leadership is the critical dimension of change management.

Figure 5.8



Early studies of leadership provided some insights into the leadership process that are still of considerable value. Based on the "Managerial Grid" work of Blake and Mouton Hersey and Blanchard developed the "Life Cycle Theory of Leadership." Although this work was first published in 1972, the concepts are still fresh and on the mark with respect to the leadership needs of those charge with managing enrollment change. Their work is summarized in Figure 5.9.

Blake and Mouton identified two distinct types of interdependent leader behaviors:

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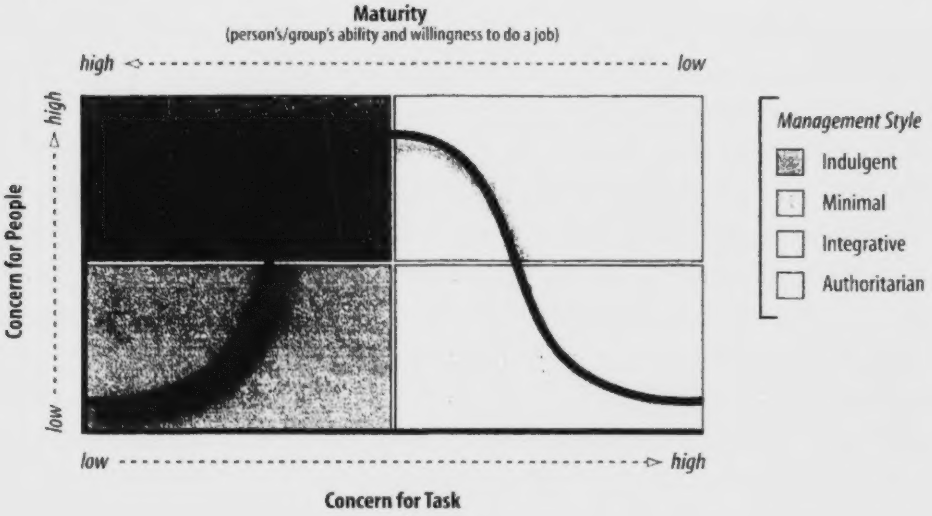
Figure 5.9



Task Behavior: the degree to which the leader exhibits behaviors that are task related such as the enforcement of deadlines, outcomes, etc.

Relationship Behavior: the degree to which the leader exhibits behaviors demonstrating an interest in and concern for the feelings and welfare of those being led.

All leaders possess some of each of these behavioral patterns. The combinations define various management styles. Those using an authoritarian style (high task and low relationship focus) concentrate on results and normally do not concern themselves with how those being managed feel about the work. This manager is often described as the "task master." This kind of leader might say, "I don't care how you feel about it, but we have to get all those admission applications entered by Friday." Managers who have high levels of concern for both task and relationship might say, "I know this is a killer for us and that we are all tired, but we have to get this stuff taken care of by Friday." This leader jumps in and helps out and is labeled a "team player." If the manager has a high concern for relationship but a low concern for task, the personal needs of the people take precedence over the task. This leader might say, "This is too much. You can't get this done by Friday. Do as much as you can." This represents a "country club" type approach in which the only important thing is whether or not things are good between the leader and subordinates. The remaining style, the leader who exhibits low levels of both task and relationship behavior can be called the "withdrawn" leader. Such a person would probably say nothing at all about what needs to get done or who will do it.

In reality, there are few classic examples of leaders who fit squarely into one quadrant or the other. That is because each concern has many levels between the low and high labels on the measuring scale. At first review, the reader would conclude that the team leadership approach is the most desirable style. However, when Hersey and Blanchard studied the actual performance of leaders they discovered successful leaders in all quadrants. Based on their research they concluded that an examination of the type of leader behaviors in itself could not explain why some leaders were successful and some were not. Clearly, there must be some other intervening variable. Further research led them to conclude that the remaining variable needed to explain success was something that had nothing to do with the leader. It had everything to do with the group being led. In others words, success was contingent upon the nature of the group being led.

Some groups possessed either low willingness or low ability to perform the tasks they were asked to complete. Other groups exhibited a high level of ability and willingness to perform the task. Hersey and Blanchard labeled this variable group maturity. They also hypothesized that the level of maturity was distributed in a "normal" fashion in an organization with a small number of groups being either fairly immature or very mature with most groups clustering toward the mean. In testing this theory, they discovered that the "task master" approach could be highly effective when dealing with immature groups. These workers needed a good deal of definition on what had to be done, when it needed to be completed and how the task should be performed. Conversely, in groups possessing a high level of maturity, the leader did not have to provide much task or relationship support. This support came from the group members themselves who were both highly motivated and fully capable of accomplishing the task. Leaders of moderately mature groups were most often successful when they used a "team" or "country club" style.

In higher education we assume that the individuals are willing and able to perform the tasks. This perhaps explains why so many institutional groups often frown on attempts to introduce strong leadership into the mix. Leaders intuitively sense this and often exhibit a "don't rock the boat too much" approach to educational management. An individual who is perceived as innovative by their colleagues is frequently ostracized. An individual who focuses on task is often rebuffed.

The introduction of enrollment management techniques into an institution can cause considerable stress unless leadership adopts the appropriate style necessary to maximize the chances of success. If the groups involved do not possess the right abilities or necessary level of willingness, the enrollment leader has to use a style that fits the need. In cases in which group ability is low, this may initially require the leader to use a more task-oriented approach than had typically been the case. Policies and procedures need to be clearly defined and effectively communicated. Tasks need to be structured, goals established, and assessment techniques for measuring progress developed. Most importantly, people need to be trained. The creative application of Lewin's Force Field Analysis approach will help the leader identify and address those environmental factors that are making the group less able than is necessary.

In addressing the willingness issue, the leader must determine what reservations individuals and groups have regarding the change. If these are personal in nature, i.e. there is more for me to lose than gain, the leader must act to demonstrate the benefits, at a personal level, that will accrue to the participants. This might involve letting individuals know what they will be doing once the change has been made, providing the appropriate incentives, or delineating the consequences to those who do not participate. In adopting the appropriate style, the leader is attempting to effectively lead those in the middle of Moorthy's topology of predisposition to change. This implies that a small number of persons (5 to 10 percent) will not change, no matter what the leader does. Expending energy on these individuals—except perhaps to remove them from the mix—may be counterproductive.

6

SEM as a Driver for Institutional Change

Rita R. Owens

For almost 25 years, enrollment managers have created and driven change at their colleges and universities. With a clear vision of the future and a mandate from senior administrators, enrollment managers have combined departments such as admissions, registrar, and financial aid and have adopted new technologies, such as integrated student information systems, to create and to support new, strategic ways of attracting and retaining students.

Today, we would call our activities "reengineering" and "change management," but 25 years ago those labels did not exist. Regardless, enrollment management has and will continue to play a significant role in changes affecting institutions of higher education. In this chapter, we explore the methods enrollment managers may use to establish a framework for large-scale change initiatives.

SEM is at the heart of an institution's ability to change. Why is SEM a lever for change? Perhaps it is because we have had no choice, given the changing demographics of the student population, our reliance on technology to do work, and the external forces that mandate change.

Change in Higher Education

Some 66 institutions that existed in the western world in the year 1530 continue to exist in recognizable form: these include the Catholic Church, the Lutheran Church, the parliaments of Iceland and the Isle of Man, and 62 universities (Clark Kerr and the Carnegie Commission, 1994).

In higher education, change—certainly dramatic change—does not come easily. Seldom do we see widespread change across our institutions. Certainly, some academic or administrative departments may embrace new technologies or innovative curricula, but many do not. Nevertheless, new developments in technology, as well as external and internal pressures, are making it imperative for us to reconsider how we are organized, how we deliver learning, how we serve all our constituents, and how we support what we create.

The IBM Best Practice Partners in Student Services, for example, represent a group of institutions that have accomplished significant change in their organizations, technology, and processes in order to better serve students, their parents, and faculty (Beede and Burnett, 1999). By looking across organizational boundaries and creating "one-stop shopping centers," Web transactions, and innovative training programs, they have succeeded. The University of Delaware, for example, resolved its customer service problems by bringing together the major student business functions into one physical area. Seton Hall University went even further by creating a new student service organization bearing little resemblance to its previous, separate admissions, registrar, financial aid, and bursar departments.

In the last ten years, many institutions have purchased software suites that integrate student information, human resources, and financial accounting systems. These integrated systems have challenged many departments, which have had learn to collaborate in order to transact business in new and better ways. Nevertheless, countless innovations, such as one-time record initiation, self-service Web applications, and better reporting, have been introduced because of technology and the cooperation it has necessitated.

Where to Begin

The early phases of a major change project are the most daunting, for it is then that the vision is created, goals are established, the business case is defined, the methodology is determined, and the project is launched. The early phases also happen to be the best time to align sponsorship and support.

Vision

Vision embodies all the ideals, goals, and objectives that drive the need for change. Often, a project's vision already exists within an institution. For example, a community college may want to provide education to a large geographic region, so it begins its change effort with the goal of offering 50 percent of its courses through distance learning. In this case, the college's broader vision is incorporated into the specific project.

Change agents also may offer the institution a new vision—for example, the desire to provide breakthrough service for all students. Old or new, vision statements should be both bold and practical since they are what inspire and sustain those who lead and implement change.

Typically, a vision statement is written to launch a project. The following example is from a project at Boston College:

> *Boston College seeks to be recognized as the best-managed university in the nation by adopting twenty-first century network computing as the means to deliver prompt, personal services and information to all constituents in a do-it-yourself manner every day and all day and by deploying a highly productive, broadly skilled cadre of employees* (Project Delta Direction Statement, 1996).

This is a challenging statement, the realization of which would demand hard work and commitment. Although it is general in scope ("best-managed university"), it lays the groundwork for achieving the vision ("adopting twenty-first century network computing") but does not mandate how to achieve the vision. There are a few hints, though ("deliver prompt, personal services" and "do-it-yourself manner"). Using twenty-first century, Web technology seemed both the natural way to deliver those personal services and the way we wanted to pursue.

The vision statement does not mention cost savings, a key objective of this project. Use of the phrase "highly productive" suggests that increased efficiency was a goal, but the goal could have been stated more clearly. In any event, this vision statement was transformed into the mantra "Improve Service and Cut Costs," and the 50 or so words of the mission drove more than 200 people to accomplish major system implementations, create Web business transactions, form new organizations, and redesign literally thousands of processes.

The Business Case

What would convince anyone to undertake a project that would result in confusion, ambiguity, and extra work for all involved? The reason must be good, since everyone affected by the change will demand to know why you want to "rock their boat."

We must make clear that our vision is more than "a nice idea;" rather, it is a necessity for our institution to stay competitive. One of the cases studied at the Harvard Business School details the transformation of Taco Bell after Pepsi Cola acquired it. "The company had 40 percent of the Mexican fast-food market but a negligible market share of total fast food" (Hallowell, 1991). John Martin, president and CEO of Taco Bell, began his tenure by evaluating the restaurant chain's business case. Taco Bell was losing employees to other establishments; the restaurants had no drive-up windows; most of the physical space (70 percent) in each restaurant was for the kitchen, not the eating area; and staff and managerial training was almost nonexistent. To turn the company around, Martin and Pepsi Cola minimized kitchen size, simplified the in-restaurant food preparation process, and instituted a comprehensive training plan for all staff.

Just as a number of factors contributed to the need for dramatic change in the business and operations of Taco Bell, so they do in enrollment management. A variety of circumstances propel us in higher education into similar change efforts. These circumstances include dramatic increases in the cost of higher education; distance learning opportunities; Web service capability; aging facilities; numbers of nontraditional students; the inefficient way we may be organized; and others.

Our vision, then, is where we want to be. The business plan defines where we are, what is wrong or right with us, and how we will achieve our vision.

Leadership

Committed, consistent, executive leadership is imperative for a successful change initiative. This type of leadership cannot be created just for the sake of a project but must already exist if change is to be effective. It may be embodied in one person—perhaps a Lee Iacocca-type of leader, an individual who has made significant change and can lead others to do the same—or in a group of leaders who, together, have a proven track record. Your leader might be the president, a senior or executive vice president, the financial vice president, or some combination of these individuals. Regardless, they must be committed, consistent executives who buy in completely to your vision and business case. Your leaders must be able to trust you as well as others involved in the process of change. They must be willing to invest long hours and to risk failure. Finally, they must be consistent so that everyone involved in the project can remain focused. Major initiatives take many turns along the way, and consistent leaders keep everyone on track even when the vision appears unattainable.

No major change effort can happen without executive leadership. Only an executive has the singular authority to influence the number of areas involved in a change process. The executive should have direct authority over the departments that will effect and be affected by the change. For example, an executive vice president to whom the financial and human resource areas report will have more influence in the implementation of a new financial accounting system than an information technology vice president would. If a direct reporting relationship is not possible, then the executive at least must have the respect of the entire institution so the change initiative can progress.

It might seem unrealistic to expect one leader to possess all of these characteristics, but you may have the right *combination* of leaders on campus. Having an executive committee lead the change effort will work, but the consensus building such a committee requires can slow the decision-making process. You still will need one key sponsor to keep everyone on the right path.

Creating Buy-In

The vision and business case that have inspired your change effort probably have evolved over a period of months or even years. This is important to remember when you begin to engage others in the change process. Others will not be in the same place that you are, so their support will not be automatic. You must engage with them, present your ideas, and solicit feedback, perhaps by presenting your case for change in public forums, focus groups, and department meetings or by asking for written responses. Many staff members feel more comfortable communicating their concerns through e-mail or memos rather than in public. However you do it, encourage as many constituents, managers, directors, and staff as possible to respond to your vision and to your approach to effecting change. While it will be impossible to incorporate everyone's suggestions, "just listening" will go a long way toward earning their cooperation. Many ambitious executives and project leaders forget that involving is a subtle way to gain their interest and enthusiasm.

You also can target your message to a specific audience. Consider having your public relations department help you craft your message, but be careful not to over-promise or over-sell. Nothing dooms an effort more than creating unreasonable expectations.

Beyond discussions, a great way to gain buy-in is to demonstrate that your ideas are reasonable. Provide examples of others who have achieved what you would like to; or begin by seeking small victories. For example, in order to automate a university's admissions process, you might begin by using an outside service agency to accept electronic applications. Individuals reluctant to adopt your large-scale effort might gain confidence by seeing movement—however incremental—in a positive direction.

Involvement

The best way to get buy-in into a major initiative is to be involved in it. Choose wisely those who will work with you in the project's design and implementation stages. Often, these will not be your current leaders, who likely will have become comfortable with the status quo. Rather, they may be the directors—associate and assistant directors, even—who guide your institution's day-to-day operations. They know how the business works and what should be changed. They also are less likely to feel loyalty toward "the way things are today." Eager to make their mark, these individuals likely posses an enthusiasm that can help propel your project.

Your leaders should be able to think critically about the change initiative, but everyone involved should have a keen interest in its success. Beware of involving critics just because you think you can win them over. Even as good executive leaders have definite characteristics, so, too, do good project leaders. You will want much more than mere commitment to the cause: Your project leader must be able to motivate; understand the work that is being changed; buy in to the vision; and be sensitive both to the culture of the institution and to the people that will be affected by the change. Your project leader must be able to communicate effectively with executives as well as staff. Most important, your project leader must be someone to whom you can entrust your vision and goals. You will want the very best.

Methodology

Should outside consultants be hired to manage a change effort? The answer is both "yes" and "no." While you may not have all the necessary skills in-house to orchestrate an institution-wide change effort, you will have some of them. Many leading business consulting and technology firms offer experienced project leaders and change management experts. Mixing and matching internal and external expertise can work well and may prove even better than pursuing a purely internal or external route. Consultants can offer critical support (typically lacking in higher education) in the following areas:

- change management consulting;
- communications planning;
- project management consulting;
- benchmarking; and
- business process redesign training.

I have learned from experience that most colleges and universities have support in these areas:

- project management;
- pre- and post-assessment;
- technology and process design and implementation; and
- organization design.

Your own decision certainly will be based on the skills of your internal project manager or project management team. You may wish to engage external consultants to supplement the efforts of your on-campus leader(s). Doing so may lend legitimacy, as a recognized and respected person on your campus is seen leading the change effort while having the objectivity and additional expertise of outside consultants at his or her disposal. More important, you will gain consistency within the project, from the time of its initiation through its design and implementation. Surrounding your project leader and designers with consulting expertise also will result in their being well-trained for future in-house change efforts.

Another source of help is colleges and universities that have managed successful change efforts. Collegiality among institutions and individuals is certainly one major benefit of being in higher education. And what could be more effective than learning from others' successes and failures? Professional meetings, conferences, site visits, and even books such as this one provide a wealth of assistance.

The Design

Well-organized change efforts begin with high-level, detailed designs. Creating these may be a new discipline for individuals at your institution, but there is great value in documenting a specific design. A high-level design is similar to an architect's blueprint: While you can see that there will be a kitchen, as well as what will be in it and where, you do not see what the flooring will be made of or what the cabinets will look like.

The high-level design details the vision yet leaves much to be decided. It is the first step (of several) in defining what your new organization, systems, or processes will be—of making that intangible vision more specific. Having completed the high-level design, you will have a good sense of what support you will need to complete the implementation phase. You then can align technology, human resources, learning and development, and outside consulting support.

The detailed design includes all of the elements an institution will need to implement the change project. These may include technical specifications; business process designs; job descriptions; training plans and curricula; space design; and an implementation schedule. On the basis of the design, implementation tasks can be assigned, and change will begin to happen.

For example, if your vision is to provide breakthrough student service, then your high-level design may indicate that everyone on your campus needs customer service training. You now can organize your training support with help from the human resources department. Your detailed design is where the actual service training curriculum is found.

Implementation

Although the design stage often becomes the focus, implementation really is the most complex and critical phase of your change effort. The steps you take to implement change will have lasting effects on your success. Even with a solid design, implementation can take a wrong turn; you must persist and see the project all the way through. Successful implementations share the following characteristics: adequate institutional support, effective change management, good communication, and consistent project management. A summary of each of these elements follows.

INSTITUTIONAL SUPPORT

Successful implementations require, in equal measure, good technology, people, and financial support. Most major change initiatives have a large technology component. Typically, they call for both enterprise technology and local support. For a student employment project, for example, you might require some Web applications for students to request employment, as well as a local database of all jobs offered. While we often focus on those elements we might need from a university information technology group, we also must mobilize our own local technology development.

The best way to ensure that you get what you need from your institution's information technology group is to involve that group throughout your project. Include innovative technology experts on your design teams. If you don't, you will find yourself handing off a major change request to a group not heavily invested in your effort. Clearly, that is risky. There are significant, competing demands for technology from across your institution. To be sure that you will have the technology you need when you need it, you must have executive support as well as the advance commitment of the information technology group.

Similarly, your change effort will require human resources support, specifically in the form of learning and development, compensation and classification, and organizational design and development. Typically, new organizations are created as part of a change process, and every job you change or create must be reviewed, classified, and compensated. To meet the requirements of the new organization, your employees will require an individualized learning and development curriculum. They also will need to understand the new operational model you have established. As with information technology, it will help if support is garnered throughout your change design. Even if your own human resources division lacks the expertise required, you can rely on this group to coordinate the effort using outside consultants. (Just be sure any consultants you engage have experience with higher education.)

Finally, you will need financial support. By the time you reach the implementation phase, you will have a plan to finance your project. Evaluate your project budget continually. If you are over budget, or if you expect to be, inform your sponsors immediately. It is wise to include someone from your budget or another financial area on your project team. Of course, you must be realistic and acknowledge that not every detail you designed may be funded; what is critical is to ensure that those elements that protect your vision are funded.

CHANGE MANAGEMENT AND COMMUNICATION

In the 1980s, reengineering projects became the rage in corporations. Hammer and Champy (1993) wrote their now famous *Reengineering the Corporation*, and international companies began to study and redesign their processes. Within three years, Hammer followed up with a "lessons learned" book called *Beyond Reengineering* (1996). Not surprisingly, the focus of this second book is on change and its effect on people, not just work. Unfortunately, many of us make the same mistake: we underestimate the effect of change on people. An entire field—change management—has emerged in response and now exists to support change efforts.

Communication is the best way to support people through dramatic change. Though this may sound simple, it is not, because people tend to hear what they want to hear. For example, three people, all hearing the same presentation, are likely to come away thinking quite different things. The differences usually relate to the disposition each listener brings to the presentation. Because of the "phenomenon" of selective listening, it is critical that you craft your messages well.

The best way to communicate change is one-on-one. While this is time consuming, it is only in this kind of personal conversation that you can communicate your points effectively and respond to questions and comments. Bring a personnel expert to this meeting to help you identify when misconceptions are being formed. Such an expert also would be helpful when you have to tell an employee that the new organization will dramatically change her work life.

Not only do staff need to hear about the changes that will take place, but they also must understand how to respond to change. Your learning and development plan should provide people with the skills to cope with the changes they will confront. Many types of programs, including stress management and "coping with change" sessions, provide staff with new tools. The timing of such programs is critical. Trying to discuss how someone will feel about a change that will not happen for another six months is not nearly as effective as talking about change that is happening right now. Be sure to weave a communications plan into your learning and development curriculum. It is important that you deliver your messages appropriately and "in the right order." This is an area in which higher education is unique: Whereas businesses have a protocol for staff communication, everyone in higher education is pretty accessible to everyone else, making it difficult to ensure much confidentiality. When initiating dramatic change, take a lesson from business: establish a protocol for the dissemination of information and abide by it.

Finally, a just-in-time, functional training program must be in place when you implement your change effort. Many of your staff will have been serving your institution for several years (another unique characteristic of colleges and universities). However, "long timers" typically like to know precisely what they are responsible for and how things work. When you introduce dramatic change, you will be asking staff to perform differently, and for a time, there may be confusion. Until you can reassure staff with a training plan specific to their work, they will remain uneasy (and probably unproductive). Staff training must be continuous and, again, "just in time."

Your functional training plan should take into account at least a year's activities. Teaching someone in September what they will not need to know until the following June will not prove effective. Finally, it is wise to assign someone in your immediate organization to coordinate and be responsible for "functional training."

PROJECT MANAGEMENT

Effective and rigorous project management is important throughout a change project, but it is never as important as during implementation. The project manager and/or team is responsible for balancing much. Usually, someone on your campus will be available to manage a major project for you. While it would be an added bonus to find a project manager familiar with the work you are changing, this is not mandatory. It is more important to assign or hire the "right" project manager. Regardless of an individual's knowledge of SEM, project management is itself a discipline to keep everyone on track.

The most important aspect of project management is keeping all project components balanced, on time, and on budget. Apart from this, your project likely will fail. For example, changing an organization without formulating a new space plan might be disastrous to staff morale. Within the constraints of the academic calendar, this balancing can be difficult. As SEM professionals know, not acting quickly can necessitate another whole year's wait before implementing change. With a "small window" for many of our processes, we in higher education must be more stringent in terms of keeping to timelines than those in most businesses, where processes remain stable year-round.

End and Begin: Sustaining Change

Following completion of a major change effort, everyone is tired. Those who designed may have worked on the project for years; those who have been affected by the change may be saturated, unable to absorb more change. The wise SEM leader knows when to back off from more change and yet sustain a culture of change.

First, the project should have an obvious end (Beede and Burnett, 1999). The end may be a date or an activity, but those involved must know that the present time of uncertainty and anxiety is drawing to a close. Often, project teams come together one last time to celebrate their accomplishments. Yet even in the midst of such celebration, the message that the climate of change will continue should be clearly sounded. It may be time for slow, incremental change rather than dramatic change, but the process of change will continue.

Have a plan that you can announce at the project's conclusion. For example, you might form a small consulting group within your organization whose task it is to make process and organizational recommendations. Staff from all areas of the new organization can rotate this assignment. You also should have a plan for assessing the effectiveness of what you have just completed. Remember: Your business plan came from understanding your current conditions, and you will need to revisit them to assess what you have accomplished. It typically takes two years to settle any major technological or organizational change effort. Though everyone likely is tired, you must find a way to continue working toward your vision and fine-tuning what you have begun. Just as strong leadership began the change, so, too, it must sustain the change.

Lessons Learned

Even if you implement every detail set forth in this chapter, you will make mistakes. That comes with the territory. It is as important to review your failures as it is to review your successes, especially as you culminate your change effort. Understanding what you have done can only help you the next time around. Beyond that, the lessons you learn can help all SEM experts on their change journey.

Why Do It?

Now that you understand the complexity of leading dramatic change at an institution, you might ask why you should even bother. As SEM leaders, we have an obligation to drive this type of change. The students, parents, and faculty we serve expect it of us. We are the first to welcome students to our campuses. We set the tone for how progressive our institutions really are. Driving change allows us to draw upon our many years of experience as SEM leaders. Change challenges all of us, as no other professional experience can, by committing us to a vision and to making it real.

PART III

SEM Architecture

The architectural design of the SEM operation is strongly correlated to the achievement of institutional enrollment objectives. As with most initiatives of this scope, you must "begin with the end in mind." Have a clear purpose for creating a SEM organization; know what you want to accomplish; and establish written objectives for the SEM enterprise. From these humble beginnings comes the vision that will guide decisions regarding organizational structure, strategic planning, resource allocations, infrastructure needs, staffing patterns, and knowledge management: the foci of the chapters in Part III.

Like a master builder, the SEM architect must become intimately familiar with the primary function of the SEM system and consider how it will be used by people. Each detail must be planned carefully and a blueprint drawn representing the components of the SEM system and the anticipated interactions within and among the various components. A budget should be established to build and maintain the SEM enterprise. Anticipate the unexpected by creating a contingency fund. Next, ensure that the structure will be adequate to support the volume of activity expected. Space utilization, space configuration, network infrastructure, server capacity, security, and records storage should all be considered. Plan at least five years into the future. And finally, think about the skills staff will need to meet the changing expectations of key constituent groups, both now and in the future. Build a team with a knowledge base sufficient to serve students in an exemplary manner, to perform job functions using cutting-edge technology, and to give your SEM organization a competitive advantage.

The SEM organization should be customer-focused. For example, attending to the needs of students and faculty when determining staffing patterns; integrating services; acquiring technology; and creating a "one-" or "no-stop" shopping model will yield a highly productive SEM organization. Not all SEM organizations are productive. For a SEM system to perform well, its architecture must be built to last, to endure turbulent times, and to respond to future needs.

The chapters in Part Three provide valuable insights into the tools and methodology for successfully constructing the SEM architecture. Some adaptation will be necessary to suit the enrollment objectives and resource constraints of your particular college or university, but the concepts are both scaleable and flexible.

CHAPTERS 7, 8, 9, AND 10 ▷

7

Building the Enrollment Organizational Model

Tom Huddleston

Organizational structure continues to be one of the primary ingredients of any institution's successful enrollment management effort. Organizational formats are as diverse as institutions themselves, and some have proven more successful than others. Generally, enrollment organizational structures have been designed to achieve goals and strategies that support the institutional mission and values. However, most organizations are not designed to provide the leadership necessary to establish an optimal enrollment environment.

> **"Organizations are creatures of habit just like people. They are cultures, heavily influenced by the past."**
>
> —*Robert H. Waterman, Jr.*

Some campuses have chosen to focus on student services, marketing expertise, or greater coordination of communication functions, while others emphasize academic support services and retention. The reporting areas for these organizational models vary. The enrollment organization may be an important part of academic affairs, student services, or the president's portfolio.

In adopting an enrollment model, universities should consider various organizational schemes, strategic goals, and perceptions of success relative to the model. They also should carefully consider a developmental plan that will establish an organizational structure that provides leadership for the identification, attraction, selection, encouragement, registration, retention, development, and graduation of targeted student segments.

Key components of any organization's success include top-level endorsement, professional leadership, collaboration and partnerships—particularly in academic affairs, and integrated units with creative staff who resolve issues and respond quickly to student enrollment issues.

Enrollment Management History

Enrollment management—one of the most significant developments in higher education administration—is a relatively new field. Its initial development within the private sector in the mid 1970s was a response to decreasing secondary school enrollments and the realization that the enrollment, retention, and graduation of new students warranted greater attention. Prior to enrollment management development, most colleges' and universities' operating units were "loosely coupled." Administrative units that had a direct impact on enrollment operated independently, sometimes even at cross-purposes, in their attempts to reach their particular goals (Keller, 1991). Later, the four-year public sector and community colleges embraced the concept that continues to serve as a primary strategy for sustaining and building an institution's competitive advantage.

Various organizational models have been developed that support institutional values and enrollment management concepts. A comprehensive enrollment management model was first advanced and implemented in 1980. This model broadened the responsibility for enrollment and encouraged partnerships with academic affairs. It addressed student enrollment and institutional retention needs and encompassed admissions, financial assistance, orientation, advisement, retention, research, and career services (Huddleston, 1980). Shortly thereafter, the term "enrollment management" and its various definitions emerged, and new organizational structures were developed.

Kemerer, Baldridge, and Green (1982) equated enrollment management with a steady supply of qualified students—an assertive approach ensuring institutional vitality. From that early definition, others emerged. George Keller (1991) defined the concept more broadly when he noted, "The radical underlying commitment of enrollment management is its unswerving focus on the longitudinal care and comprehensive education of students."

Enrollment development and stabilization remain relevant in higher education and in state agencies. Recently, the Texas Higher Education Coordinating Board (2000) developed "a uniform recruitment and retention strategy to assist state colleges and universities in their identification, attraction, enrollment, and retention of students that reflect Texas' population." The Board noted,

> *An institution's ability to recruit or retain students is not the result of one factor, but instead a combination of factors related to the quality and availability of the programs and services offered by the institution. Students choose an institution based on a number of factors, including the reputation and the quality of the programs and services. Major factors affect student success at an institution: the campus climate, teaching quality, and the quality and availability of appropriate support programs and services. Because these factors span the entire campus, strategic enrollment management requires participation from a variety of offices from across the institution* (Texas Coordinating Board, 2000, p.3).

The new enrollment paradigm will be based on the development of new relationships, operational excellence of student services, organizational integration, partnerships, and collaboration. Two primary structures in higher education—academic affairs and student services—will play prominent roles in establishing the new directions.

Developing the Organizational Model

Adopting a model that will comprehensively address enrollment management issues cannot be done thoughtlessly. An organizational model will provide focus and strategies that strengthen and enhance enrollment opportunities. In addition, it can respond to a specific need or to a changing environment and can facilitate the resolution of problems. Results of successfully managing a strategic organizational model will include the attainment of comprehensive enrollment goals and the strengthening of student learning.

An "Enrollment Management Organizational Survey," published in spring 1997, focused on evaluating current enrollment operations among higher learning institutions and included their organizational composition, reporting structure, reasons for reconfiguration, and implementation results (Huddleston, T., and Rumbough, L., 1997). The overwhelming majority of respondents indicated they were "very satisfied" or "satisfied" with the new structure. Yet they also indicated that the organizational model could be improved. Among their suggestions were greater campus involvement; more marketing expertise; broader coordination of functions and cross-training; adding registration, advising, and orientation units; and fostering broader leadership acceptance by academic units (1997).

An enrollment management focus must reflect the institution's values and mission. Every organization's development starts with a mission that clearly identifies the institution's primary purposes, population, goals, and objectives: non-negotiable mainstays. The mission's development is not unilateral but is accomplished in concert with other stakeholders who manifest keen interest in the venture's success because they will have the most to lose if it fails. The mission is the foundation upon which marketing plans are based. (Examples of mission statements are included later in this chapter.)

Institutional values, an essential aspect and focus of a mission's formation, foster strategic direction. Primary values are institution-specific and include academic quality, growth, price, diversity, inclusiveness, operational excellence, and brand. Their development can be driven by the institution's organizational structure, resources, culture, and tradition. Close scrutiny and establishment of institutional mission and values help foster a supportive organizational design environment.

Successful Enrollment Focus

In an increasingly competitive marketplace, institutions must develop an enrollment model comprising the institution's distinctive capabilities or competencies for success. An appropriate organizational model increases the chances for a successful enrollment focus; complements an institution's mission, goals, and strategic directions; and ensures its direction by integrating primary operational units that share the same vision.

Today, many colleges and universities constitute some structure that suggests an enrollment management focus. However, an identified management area does not necessarily mean a fully operational and comprehensive program. The need to provide an appropriate platform for an optimal enrollment environment seems clear. Optimal enrollment management encompasses more than the traditionally important admissions and financial aid units. Rather, the eventual success of a planned organizational enrollment focus will depend on the leadership's ability to promote collaboration and partnerships that ensure broad support from and quality outcomes among various institutional areas.

A new model of interaction among student affairs professionals, faculty, and academic administrators is emerging at colleges and universities across the country. This *partnership model* or *partnership movement* is characterized by collaborations and connections. Partnerships among student affairs professionals, faculty members, and academic administrators can serve as a tool to enhance the quality of the most important aspects of students' educational experience (Texas Coordinating Board, 2000).

In addition, the enrollment organization will gain greater credibility within the institution if its leadership perceives it as a major contributor to new student quality and enrollment, excellent customer service, student retention, a strengthened academic position, and appropriate graduation rates. A successful enrollment management model or focus will build a sustainable competitive advantage for the university and for its graduates.

Fundamental marketing precepts define the development and strategies of an enrollment-focused organizational model. Krachenberg's (1972) classic marketing definition remains the prescription for the rationale, selection, and abandonment of strategies in an enrollment model. He states:

> *Marketing deals with the concept of uncovering specific needs, satisfying these needs by the development of appropriate goods and services, letting people know of their availability, and offering them at appropriate prices, at the right time and place* (p. 380).

An institution's organizational structure should be responsible for the analysis, planning, implementation, and control of particular programs designed to foster positive value exchanges with target audiences to achieve strategic goals and objectives (Kotler, 1982). For example, a successful model will establish functional values (e.g., communication, marketing, admissions, orientation, and financial assistance) that might include early transition activities to allow students to access the institution and adjust to college life. Operationally, excellent support services and programs to assist students in accomplishing their educational objectives must be in place (e.g., registration, residential life, financial aid, advising, supplemental instruction, academic support programs), as should strategic personal development programs (e.g., leadership, honors, judicial services, career planning, and student interest groups). These primary functions, partnered with high-quality academic instruction and a campus environment that promotes students' connection with the institution, result in competitive advantage.

Shaping the Organization

The enrollment management focus can be organized in one of four structures: the enrollment management committee, the enrollment management coordinator, the enrollment management matrix, or the enrollment management division. Each cynosure has pluses and minuses relative to implementation facilitation and authoritative accountability.

The committee is easily the most convenient. Composed of representatives of relevant campus areas, this delegation fosters discussion and collaboration but typically lacks authority for significant decisions and timely action.

An appointed mid-manager leads the coordination design and may possess greater interest and insight, but success will be contingent upon reporting lines and interest levels among enrollment team members. The matrix structure is established by appointed administrators whose assignments represent their areas' enrollment management input and implementation; an enrollment manager coordinates the model.

The enrollment management division format—primary units under one upper-management umbrella—shares a clear mission and goals that advance enrollment. A division that emerges from an existing administrative structure realizes greater responsibility and accountability outcomes.

An organization's design and utilization will be relative to the institution's needs and commitment. Needs may be driven by a myriad of issues. An institution's desire to increase new student revenue is clear; less clear is its need to sometimes increase enrollment by improving retention or to attend more to current students and recurring revenue. Legislative or regents' requirements may cause public institutions to foster performance-based budget issues: access, degree progress, target segment enrollments (community, freshmen, multicultural, in-state, and graduate), retention and graduation rates, full-time enrollment plans, distance learning enrollment services, excess credit hours beyond degree requirements, and degree audit programs.

Other areas that all higher education sectors must consider include increasing enrollment program profitability, price considerations, enhancing the quality of entering classes, learning environment exploration for high-risk students, improving institutional image, developing two- and four-year college articulation opportunities, and promoting awareness of academic programs (e.g., among secondary school college advisors, foundation board members, parents of prospective students, and community college advisors).

How can programs be developed to achieve successful outcomes? What will be the delivery system? Will a new organizational structure be required? Who will lead these efforts? Where will accountability and responsibility reside?

Planning is fundamental to answering these questions. Strategic planning becomes essential to establish primary strategies as well as an organizational design that can support the broad directions and institutional goals.

Optimally, an institution manages its comprehensive enrollment issues on the basis of a strategic, integrative plan that includes the identification, attraction, selection, encouragement, registration, retention, development, and graduation of targeted student segments. The institution largely determines the quality of its students' experiences within its academic environment, support services, personal development opportunities, and transition program's operational excellence. Within this broad context, an enrollment manager can shape and influence particular units that significantly affect a student's decision to enroll, persist, and graduate. The strategic management of these units is vital to an institution's growth, fiscal health, and student satisfaction (Huddleston, T., Johnsrud, L. K., & Rosser, V. J., 2000).

Figure 7.1: Enrollment Management Division Format

Model	Degree of Restructuring Necessary	Authority
Committee	Low	Influence
Coordinator	Some	Networks
Matrix	Moderate	Cooperation
Division	High	Direct

(Penn, p.17)

Is one approach better than another? This is a difficult question to answer given that local environments and needs may differ widely. Regardless, the development of partnerships and the integration of operational units within academic affairs are crucial for success. In addition, the inclusion of particular units within student affairs areas is important to achieving favorable

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enrollment outcomes. Together, academic and student affairs offer increased opportunities for greater relevance and enhanced communication among key constituency groups. Garland and Grace (1993) note that "the importance of student affairs professionals' efforts to recruit and retain students and to manage enrollments cannot be understated" (p. 47).

Whatever the reporting structure, the organizational model needs to respond quickly to students and to other units within the university. The organizational model must achieve its goals while retaining significant access to other university units. It must respond to current needs and make appropriate changes and timely decisions that enhance its opportunity for competitive advantage. Recognizing the strategic fit between the institution's goals and resources and its new marketing opportunities is important for any organization. Basically, the combination of the current environment (local and external) and the institution's current resources foster strategic goals. Thereafter, institutional strategies designed to strengthen enrollment suggest the appropriate model and subsequent processes. The organizational structure should be designed to support the primary values and strategies that will ensure favorable outcomes. This philosophy is similar to capable business models. Thompson and Strickland (1987) emphasized this concept:

> Successful strategy execution depends greatly on good internal organization and competent personnel. Building a capable organization is thus always a top strategy implementation priority. Three organizational issues stand out as dominant:
>
> ① developing a strategic internal organizational structure;
> ② developing skills and distinctive competencies that are grounded in strategy and that determine the organization's managerial talents, technical know-how, and competitive capabilities;
> ③ selecting people for key positions (p. 209).

Models

The organization's model should positively influence particular units that have a significant impact on students' decisions to enroll, persist, and graduate. Integral to this direction are program efforts that attract students and operational and academic support services necessary to strengthen satisfaction and enhance retention. Building relationships with students is critical in today's competitive marketplace. It is clear that current students' and graduates' perceptions of an institution are more "real" than what the institution may say about itself in its promotional materials.

Primary operational units achieve a strategic enrollment management direction by integrating and sharing a vision that results in a larger sphere of influence than any single office might enjoy. Such units should identify and pursue specific goals that will strengthen student enrollment. An organizational format that does not foster similar focus and integrative opportunities will accomplish little. The results of integrating focused units will be greater than those of individualized activities.

Admissions and other enrollment programs that do not consider the full range of student interests and needs within student services are impractical. Often, a program yields only short-term solutions and does not resolve long-term enrollment stability concerns (Kotler and Fox, 1985). While traditional admissions offices furnish adequate "initial" information to prospective students, they often fail to address ongoing student needs relating to academic, social, recreational, cultural, and professional opportunities (Galsky, 1991).

Various organizational models have been developed that support institutional values and needs. Some institutions choose a less formal model and a narrower focus while others chose a more complex model that reflects an integrated academic focus.

Selected statements of mission and organizational models follow:

BARTON COUNTY COMMUNITY COLLEGE MISSION

The purpose of the Enrollment Management Team is to build and maintain successful relationships with prospective students. The Enrollment Management Team will bring together all or parts of areas formerly known as Admissions, Registration, Institutional Research, and Communications for the purpose of building and maintaining successful relationships with prospective students. The functions charged to the Enrollment Management Team will include marketing, institutional research and records, and enrollment services along with directly related support services.

Reporting to the president of the college, the Barton County organization emphasizes quality services to students in their role as customer; building and *maintaining successful relationships with prospective students; and improving the college's ability to manage its program offerings. The management of program offerings includes identifying and developing new programs, identifying and revitalizing struggling programs, and identifying and discontinuing ineffective programs.* (See Figure 7.2.)

BENTLEY COLLEGE MISSION

The division for Enrollment, Marketing, and Communication, reporting to the president, is responsible for promoting the academic programs and features of the college to its internal and external constituencies, planning, developing, and implementing student recruitment, admission, registration, financial assistance, and pricing strategies. College publications and promotional material, student information, and student and faculty services regarding academic progress and degree conferral are within the mission of the division.

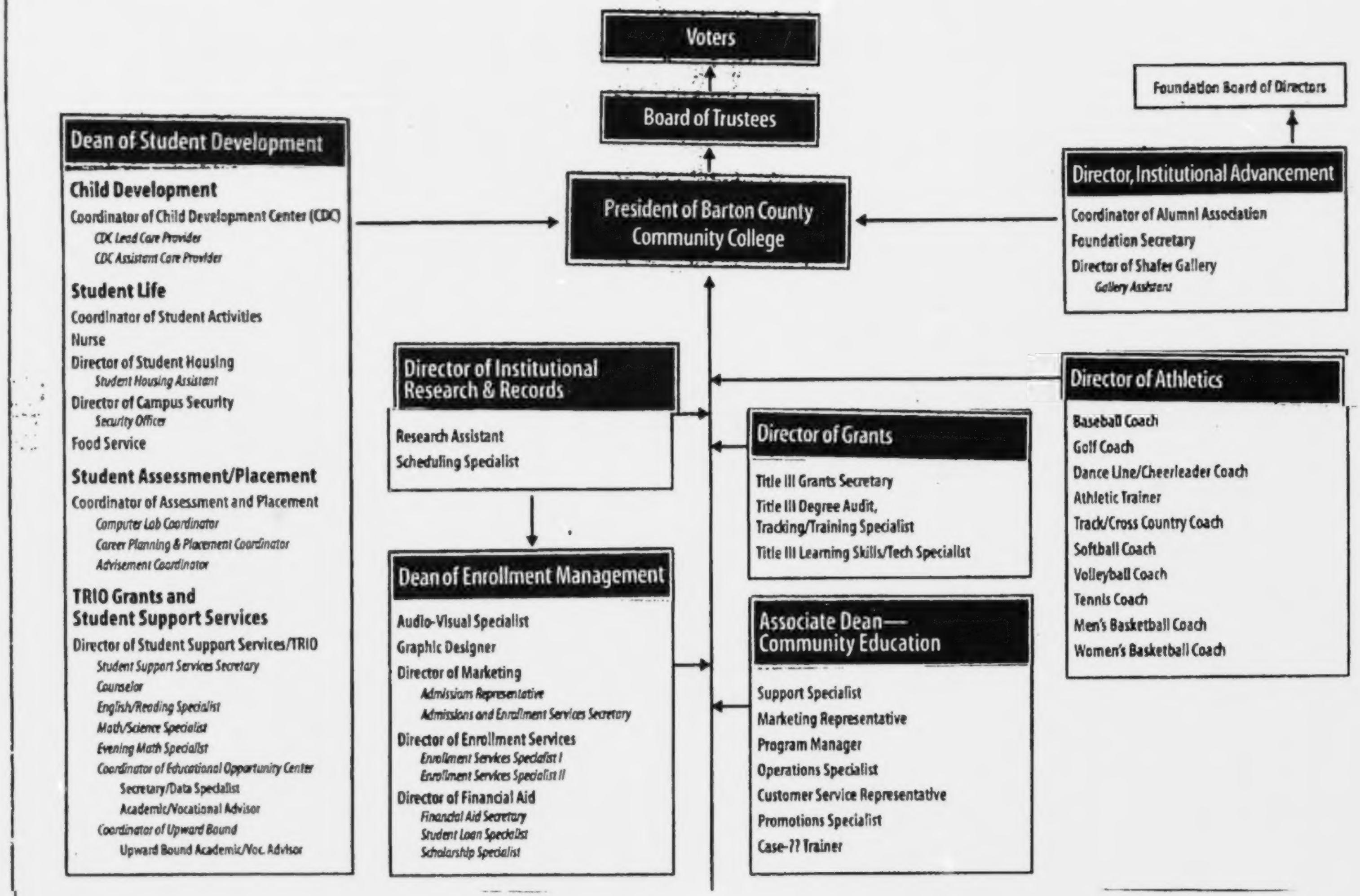
The division is led by a vice president who ensures institutional positioning and marketing, solidifying linkages among new academic product development, market research, and media relations and the centralization and coordination of institutional research and information for accurate and consistent response to public inquiries and surveys. The optimization of the strategic relationships and outcomes among pricing, financial assistance, and all college enrollment also is managed. (See Figure 7.3 on page 141.)

DEPAUL UNIVERSITY MISSION

The mission of DePaul's Enrollment Management Division is to improve and enhance DePaul's competitive market position and prominence in Chicago, the nation, and the world in order to increase DePaul's capacity to achieve the goals of the Vision 2006 Strategic Plan.

The division's focus on market position and prominence, rather than enrollment outcomes specifically, reflects the breadth of its scope of functions; it includes not only traditional enrollment management units, but also career and employer relations, alumni relations and alumni giving, all university marketing and communications and media relations activities, as well as information systems support for student and alumni data. This broad structural integration of these many functions facilitates the division's basic approach to its mission: bringing talent, information, and integrated strategy to the division's partnerships with colleges and other administrative

Figure 7.2 Barton County Community College Organizational Chart


Voters
Board of Trustees
President of Barton County Community College
Foundation Board of Directors
Director, Institutional Advancement
Coordinator of Alumni Association
Foundation Secretary
Director of Shafer Gallery
Gallery Assistant
Dean of Student Development
Child Development
Coordinator of Child Development Center (CDC)
CDC Lead Care Provider
CDC Assistant Care Provider
Student Life
Coordinator of Student Activities
Nurse
Director of Student Housing
Student Housing Assistant
Director of Campus Security
Security Officer
Food Service
Student Assessment/Placement
Coordinator of Assessment and Placement
Computer Lab Coordinator
Career Planning & Placement Coordinator
Advisement Coordinator
TRIO Grants and Student Support Services
Director of Student Support Services/TRIO
Student Support Services Secretary
Counselor
English/Reading Specialist
Math/Science Specialist
Evening Math Specialist
Coordinator of Educational Opportunity Center
Secretary/Data Specialist
Academic/Vocational Advisor
Coordinator of Upward Bound
Upward Bound Academic/Voc. Advisor
Director of Institutional Research & Records
Research Assistant
Scheduling Specialist
Dean of Enrollment Management
Audio-Visual Specialist
Graphic Designer
Director of Marketing
Admissions Representative
Admissions and Enrollment Services Secretary
Director of Enrollment Services
Enrollment Services Specialist I
Enrollment Services Specialist II
Director of Financial Aid
Financial Aid Secretary
Student Loan Specialist
Scholarship Specialist
Director of Grants
Title III Grants Secretary
Title III Degree Audit, Tracking/Training Specialist
Title III Learning Skills/Tech Specialist
Associate Dean—Community Education
Support Specialist
Marketing Representative
Program Manager
Operations Specialist
Customer Service Representative
Promotions Specialist
Case-?? Trainer
Director of Athletics
Baseball Coach
Golf Coach
Dance Line/Cheerleader Coach
Athletic Trainer
Track/Cross Country Coach
Softball Coach
Volleyball Coach
Tennis Coach
Men's Basketball Coach
Women's Basketball Coach

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divisions. The division reports to a vice president who in turn reports to the executive academic vice president of the university, a necessary relationship in light of the synergy between enrollment management strategy and academic program development and campus expansion. (See Figure 7.4 on page 142.)

ROCKHURST UNIVERSITY MISSION

The Rockhurst Enrollment Management Team will be the university's premier provider of service to our current, future, and former students. Our goal is to continuously improve the quality of service in the areas of Admission, Event Coordination, Financial Assistance, Retention, Register Services, and Research. As we evolve as an organization and move toward the future, we look to set institutional standards for value and quality that other universities of our size and type will seek to emulate. The Enrollment Management Team reports directly to the president, although its competence reaches across the entire university and seeks input and assistance from all. Students can be assured that we will assume only those tasks we can do exceedingly well.

The Enrollment Management Team at Rockhurst University unites key administrative offices for the purpose of synergistically addressing four primary concerns: price and discounting strategies; product development and reduction efforts; location and delivery enhancement; and integrated marketing and recruitment plans. The organizational model encourages strategies for short- and long-term strategic marketing planning for optimal results in enrollment stabilization, consistent and predictable revenue, and enhanced endowment funds. (See Figure 7.5 on page 143.)

ROOSEVELT UNIVERSITY MISSION

The mission of Roosevelt University's Enrollment and Student Services, which reports to the provost, is to recruit and retain quality students. We are committed to providing exceptional service to students as they pursue their educational goals and become contributing citizens. We foster a collaborative work environment that is marked by pride in our work, mutual respect, and excellence.

Roosevelt University's enrollment of approximately 7,500 students is almost evenly divided between two campuses located in downtown Chicago and the northwest suburb of Schaumburg, IL. Centralizing the recruitment and retention efforts as outlined in the organizational chart was thought appropriate to reduce duplication and the perception that the "other" campus received more resources. Such

Figure 7.3 Bentley College Marketing, Communication, and Enrollment Organizational Chart

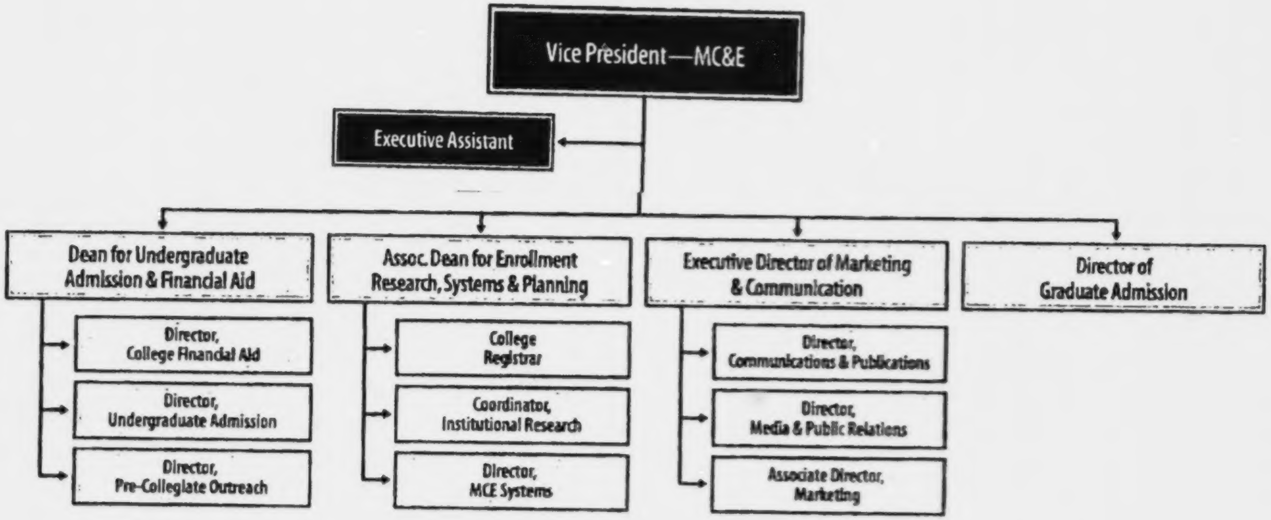
Vice President—MC&E
Executive Assistant
Dean for Undergraduate Admission & Financial Aid
Director, College Financial Aid
Director, Undergraduate Admission
Director, Pre-Collegiate Outreach
Assoc. Dean for Enrollment Research, Systems & Planning
College Registrar
Coordinator, Institutional Research
Director, MCE Systems
Executive Director of Marketing & Communication
Director, Communications & Publications
Director, Media & Public Relations
Associate Director, Marketing
Director of Graduate Admission

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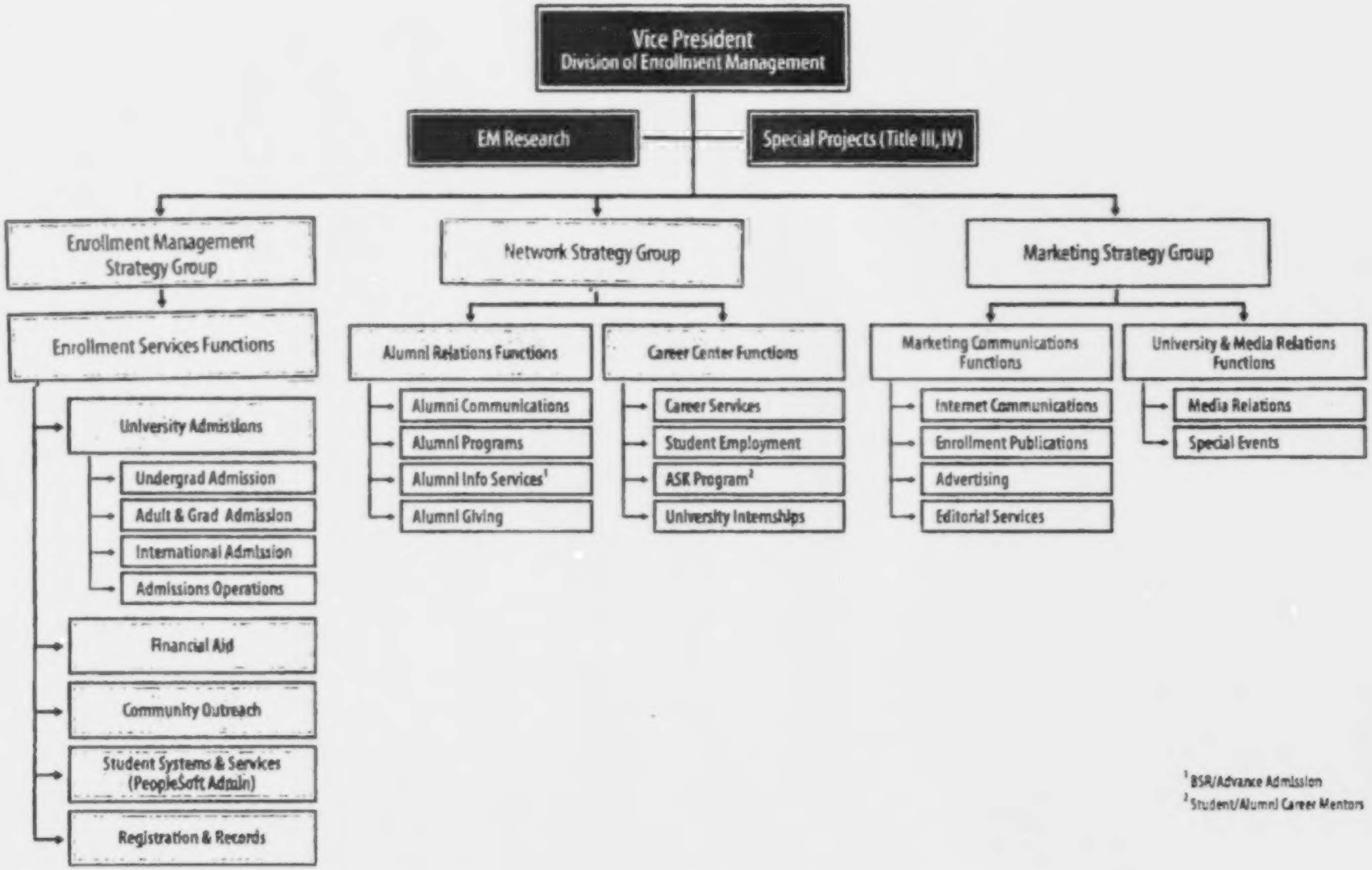
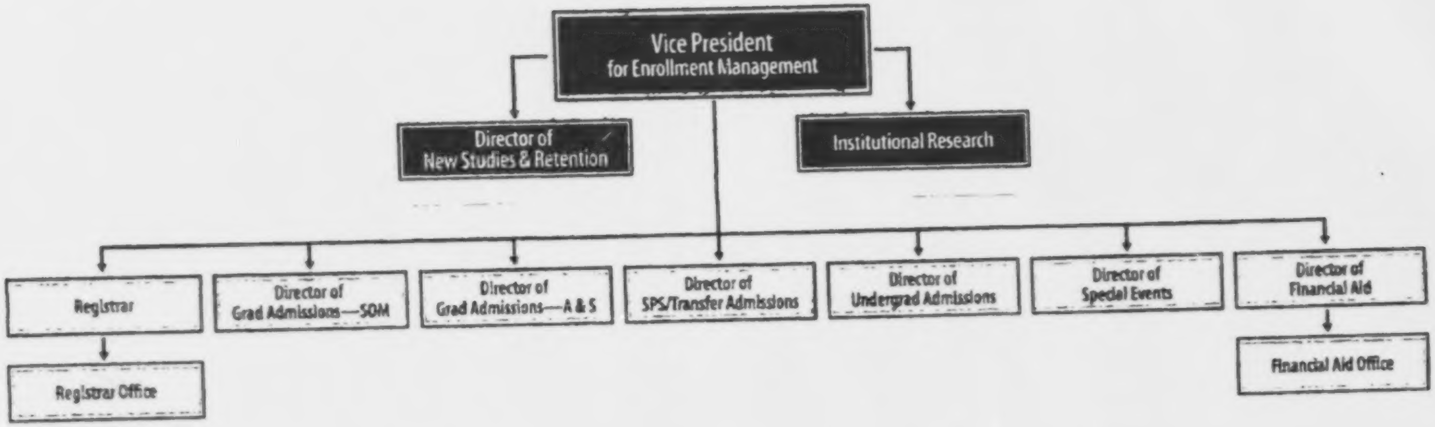
Figure 7.4 DePaul University Enrollment Management Division Organizational Chart


Vice President
Division of Enrollment Management
EM Research
Special Projects (Title III, IV)
Enrollment Management Strategy Group
Network Strategy Group
Marketing Strategy Group
Enrollment Services Functions
University Admissions
Undergrad Admission
Adult & Grad Admission
International Admission
Admissions Operations
Financial Aid
Community Outreach
Student Systems & Services (PeopleSoft Admin)
Registration & Records
Alumni Relations Functions
Alumni Communications
Alumni Programs
Alumni Info Services[1]
Alumni Giving
Career Center Functions
Career Services
Student Employment
ASK Program[2]
University Internships
Marketing Communications Functions
Internet Communications
Enrollment Publications
Advertising
Editorial Services
University & Media Relations Functions
Media Relations
Special Events

[1] BSR/Advance Admission
[2] Student/Alumni Career Mentors

Figure 7.5 Rockhurst University EMT Organizational Chart


Vice President for Enrollment Management
Director of New Studies & Retention
Institutional Research
Registrar
Registrar Office
Director of Grad Admissions—SOM
Director of Grad Admissions—A & S
Director of SPS/Transfer Admissions
Director of Undergrad Admissions
Director of Special Events
Director of Financial Aid
Financial Aid Office

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cooperation has led to greater cost efficiencies and the sharing of staff positions. Institutional research and marketing are within the division. The majority of marketing dollars are used to benefit enrollment. (See Figure 7.6.)

UNIVERSITY OF CENTRAL FLORIDA (UCF) MISSION

The Division of Student Development and Enrollment Services (SDES) is committed to building and strengthening student enrollment. This is achieved by providing an optimal student learning environment characterized by excellent customer service, diversity, inclusiveness, partnerships and needed programs, activities, and facilities that add value to the UCF experience.

The division has three primary functions that include transition, support services, and personal growth of students.

Key values within the operation of the division include caring, commitment, collaboration, diversity, excellence, honesty, inclusiveness, innovation, integrity, loyalty, respect, and trust.

The efforts of SDES to meet its mission and objectives will be measured by enrollment quality, student retention, customer satisfaction, and student success. These primary outcomes will contribute to creating a competitive advantage for the individual student and the institution.

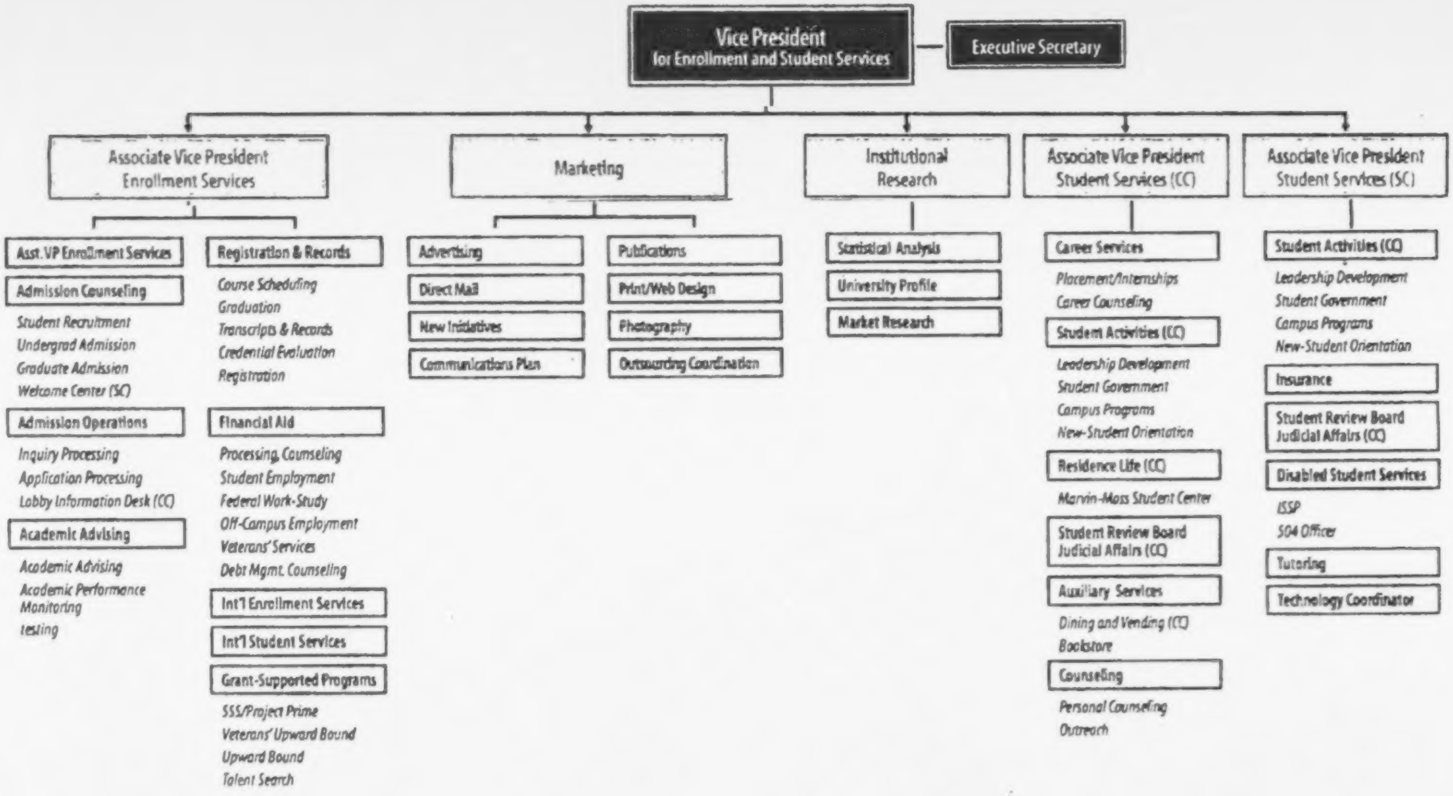
A primary outcome for the division is to add value to the University of Central Florida experience. Student Development and Enrollment Services is a significant contributor to student learning. Its programs develop quality enrollment, strengthen student learning, provide excellent customer service, and foster growth in diversity, inclusiveness, and partnerships across the campus. Its success is measured by student success, retention, satisfaction, and enrollment quality. The division reports to a vice president that is responsible to the provost. (See Figure 7.7 on page 147.)

UNIVERSITY OF NORTH CAROLINA AT GREENSBORO (UNCG) MISSION

The Enrollment Services staff at the University of North Carolina at Greensboro works creatively and diligently to attain optimal enrollments, support the academic mission of the university, and enhance student success. In so doing, we value and respect others regardless of circumstances. We aspire to become a service leader on campus, as well as a national model for quality enrollment services.

The organizational structure at UNCG helps to integrate key student service functions. Enrollment Services reports to the provost; this has proven invaluable in

Figure 7.6 Roosevelt University Enrollment and Student Services—Organizational Chart by Function


Vice President for Enrollment and Student Services
Executive Secretary
Associate Vice President Enrollment Services
Asst. VP Enrollment Services
Admission Counseling
Student Recruitment
Undergrad Admission
Graduate Admission
Welcome Center (SC)
Admission Operations
Inquiry Processing
Application Processing
Lobby Information Desk (CC)
Academic Advising
Academic Advising
Academic Performance Monitoring
Testing
Registration & Records
Course Scheduling
Graduation
Transcripts & Records
Credential Evaluation
Registration
Financial Aid
Processing, Counseling
Student Employment
Federal Work-Study
Off-Campus Employment
Veterans' Services
Debt Mgmt. Counseling
Int'l Enrollment Services
Int'l Student Services
Grant-Supported Programs
SSS/Project Prime
Veterans' Upward Bound
Upward Bound
Talent Search
Marketing
Advertising
Direct Mail
New Initiatives
Communications Plan
Publications
Print/Web Design
Photography
Outsourcing Coordination
Institutional Research
Statistical Analysis
University Profile
Market Research
Associate Vice President Student Services (CC)
Career Services
Placement/Internships
Career Counseling
Student Activities (CC)
Leadership Development
Student Government
Campus Programs
New-Student Orientation
Residence Life (CC)
Marvin-Moss Student Center
Student Review Board Judicial Affairs (CC)
Auxiliary Services
Dining and Vending (CC)
Bookstore
Counseling
Personal Counseling
Outreach
Associate Vice President Student Services (SC)
Student Activities (CC)
Leadership Development
Student Government
Campus Programs
New-Student Orientation
Insurance
Student Review Board Judicial Affairs (CC)
Disabled Student Services
ISSP
504 Officer
Tutoring
Technology Coordinator

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securing necessary resources and making critical connections with the academic units. The organizational structure at UNCG *also includes a staff learning (*HR*) component to bolster its commitment to enhancing intellectual capital; a manager of marketing and communications to cultivate relationships with students and ensure consistency of internal and external marketing efforts; technology to support its Web presence and student information system; and information management to ensure that users get the information they need when they need it via information portals.* (See Figure 7.8 on page 148.)

Evaluating the Organization

In an environment of limited resources, the enrollment organization can strategically deploy its assets by examining its different units' centrality to its overall organizational mission, student service demands, key programs' distinctiveness, and assessed quality and cost. Directional alignment is the first of several steps that guide time and resource investments. Unless the unit or program contributes to the organization's goals, its resources will be wasted.

Market demand for the services or programs also is important. Enrollment units should note differences between the numbers of students, faculty, and staff that are available for services and programs and those that actually use such opportunities, and then assess their customers' "wants" in order to prioritize resources.

A program's quality reflects local, regional, and/or national recognition. Are the staff perceived as being competent? Are the systems and processes current or advanced? Is the quality based upon measured outcomes of efficiency as opposed to simple input and output measures?

A program's distinctiveness corresponds with its niche among primary competitors. What are the salient differences? Does the program, unit, or division add value to the institution?

Resources, including monetary costs and personal time, are important considerations. What contribution does each participant receive, and are the outcomes worth the investment of resources?

The preceding points are relative to unit program and activity review. The development of organizational models and programs emanating from the new structure should be evaluated and assessed in a formal and consistent format.

Figure 7.7 University Of Central Florida Student Development and Student Services Organizational Chart

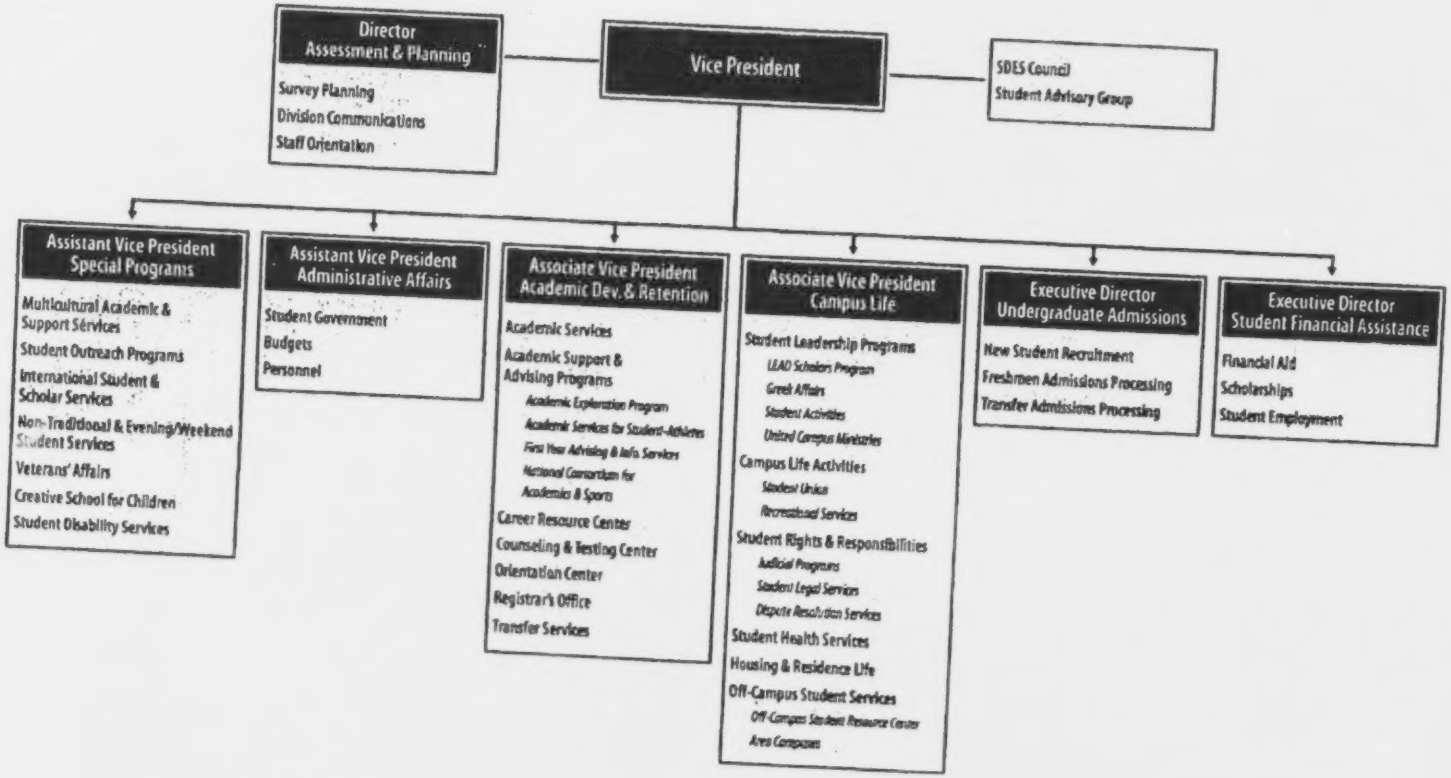
Vice President
Director
Assessment & Planning
Survey Planning
Division Communications
Staff Orientation
SDES Council
Student Advisory Group
Assistant Vice President
Special Programs
Multicultural Academic & Support Services
Student Outreach Programs
International Student & Scholar Services
Non-Traditional & Evening/Weekend Student Services
Veterans' Affairs
Creative School for Children
Student Disability Services
Assistant Vice President
Administrative Affairs
Student Government
Budgets
Personnel
Associate Vice President
Academic Dev. & Retention
Academic Services
Academic Support & Advising Programs
Academic Exploration Program
Academic Services for Student-Athletes
First Year Advising & Info. Services
National Consortium for Academics & Sports
Career Resource Center
Counseling & Testing Center
Orientation Center
Registrar's Office
Transfer Services
Associate Vice President
Campus Life
Student Leadership Programs
LEAD Scholars Program
Greek Affairs
Student Activities
United Campus Ministries
Campus Life Activities
Student Union
Recreational Services
Student Rights & Responsibilities
Judicial Programs
Student Legal Services
Dispute Resolution Services
Student Health Services
Housing & Residence Life
Off-Campus Student Services
Off-Campus Student Resource Center
Area Campuses
Executive Director
Undergraduate Admissions
New Student Recruitment
Freshmen Admissions Processing
Transfer Admissions Processing
Executive Director
Student Financial Assistance
Financial Aid
Scholarships
Student Employment

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Figure 7.8 University of North Carolina at Greensboro Enrollment Services Organizational Chart

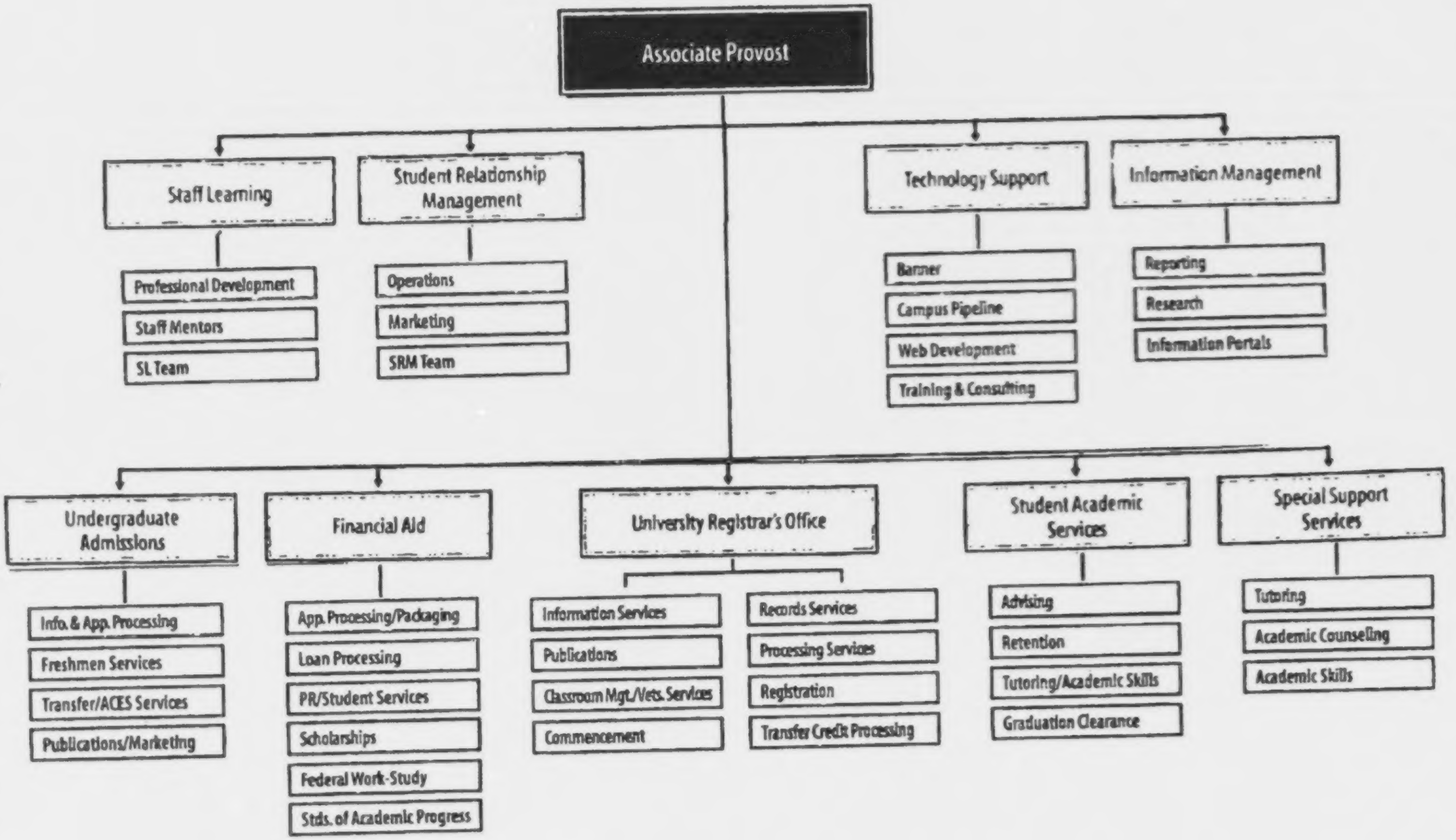
Associate Provost
Staff Learning
Professional Development
Staff Mentors
SL Team
Student Relationship Management
Operations
Marketing
SRM Team
Technology Support
Banner
Campus Pipeline
Web Development
Training & Consulting
Information Management
Reporting
Research
Information Portals
Undergraduate Admissions
Info. & App. Processing
Freshmen Services
Transfer/ACES Services
Publications/Marketing
Financial Aid
App. Processing/Packaging
Loan Processing
PR/Student Services
Scholarships
Federal Work-Study
Stds. of Academic Progress
University Registrar's Office
Information Services
Publications
Classroom Mgt./Vets. Services
Commencement
Records Services
Processing Services
Registration
Transfer Credit Processing
Student Academic Services
Advising
Retention
Tutoring/Academic Skills
Graduation Clearance
Special Support Services
Tutoring
Academic Counseling
Academic Skills

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Figure 7.9 presents a sample general evaluation that might be used for budget and programming decisions:

Other means can be used to assess organizational success. For example, one might review new student quality relative to growth, the relationship of college entrance scores, class rank, secondary school GPA, and revenue generated from new and returning students.

It is helpful to measure student retention in selected target segments. Factors that foster attrition may include "high-risk" environments (e.g., difficult courses, off-campus housing, selected membership organizations), negligible student contact, and failure to identify dropout-prone students. Surveys, inventories, and focus groups can provide important information about student

Figure 7.9: Enrollment Focus–Program and Activity Review

	Ranking: 1–5 (low–high)	Comments
Centrality		
Institutional/Divisional Mission		
Student Quality		
Services		
Partnerships		
Diversity		
Division or Unit Inclusiveness		
Demand for Service		
Students		
Faculty		
Staff		
Administration		
Alumni		
Quality		
Staff Recognition		
Outcomes Process		
Distinctiveness		
Size		
Competition		
Program Scope		
Cost		
Monetary Efficiencies		
Personal		

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satisfaction. New technological services can reduce information delays and inconvenience and favorably bolster the institution's reputation. Graduation rate is another measure that can be used to assess organizational effectiveness. (Remember that graduation rates reflect a variety of factors, including numbers of part-time versus full-time students, as well as other variables related to major, financial need, and individual situations.)

The Chief Enrollment Officer

The university should attract professionals who understand the broad implications of enrollment, as well as the relevance of operationally excellent services, to lead their organizational model and to provide a program vision that identifies, selects, encourages, registers, retains, and improves students' chances of graduating. The enrollment leader should be flexible, visionary, and motivational and have a history of progressive responsibility within one or more of the primary areas of enrollment management. The successful leader will be one who attracts a strong staff, recognizes urgency, remains on task, and feels comfortable serving within an academic arena. Garlene Penn (1999) has written on the "evolution" of enrollment managers:

> *They have become not only authorities on institutional admission and financial aid policies, but also partners in enrollment decisions affecting the whole institution as well as individual students. Those responsible for enrollment are no longer located only in admissions and registration. Now they are all over the campus, planning with faculty how best to assist students with learning problems, or discussing cafeteria food, physical facilities, or other services that seem to be causing dissatisfaction among the students. Many enrollment management professionals are institutional researchers or have access to an institutional research department to track students throughout their educational careers and provide crucial data to the president's cabinet for important decisions. Enrollment management professionals endeavor to know students throughout their entire educational process. They seek to provide students with the best possible environment in which to finish their education* (p. 57).

The majority of chief enrollment officers at public institutions report to the chief academic affairs officer, and a lesser number report to the chief student affairs officer. At the majority of private institutions, the chief enrollment officer reports to the president (Huddleston/Rumbough, 1997). Understanding the implications of an enrollment focus and support from the president, a chief academic officer and other top administration will be essential in the development and implementation of a successful enrollment organization.

Conclusion

Clear reasons exist for integrating an enrollment model within an institution. The rationale and imperatives for a successful enrollment model follow:

RATIONALE

- The successful integration of an enrollment management model strengthens an institution's opportunities for optimal enrollment.
- The institution comprehensively develops its enrollment based on strategic, integrative plans that include the identification, attraction, selection, encouragement, registration, retention, and graduation of targeted student segments.
- The institution enhances the quality of the students' collegiate experience based largely on the academic environment, operational excellence of the institution's transition programs, student services, and personal development opportunities.
- Professionals strategically develop an enrollment management organization that understands the institution's broader enrollment context and shapes and influences particular units that have a significant impact on a student's decision to enroll, persist, and graduate.
- Strategic management augments an institution's growth, fiscal health, and student satisfaction.
- The enrollment management focus complements the institution's mission, goals, and strategic directions.
- The successful enrollment enhancement ensures a competitive advantage for the institution and graduating students.

IMPERATIVES

- Integrating and sharing the primary vision of operational units that together provide a larger sphere of influence than single offices enjoy develops positive strategic directions.

- Collaboration and partnerships within the institution—particularly in academic affairs—remain critical for the successful development of an enrollment management focus.
- Program planning and funding require cognizance of essential target segments with particular needs, preferences, and perceptions.
- Formal assessment and evaluation activities are necessary to review program outcomes and needs for improvement.
- Resources are strategically assigned by evaluating programs according to their centrality, demand, distinctiveness, quality, and costs.
- Professionals who understand the broad implications of enrollment and the relevance of operationally excellent services lead the enrollment focus and programs that identify, attract, select, encourage, register, retain, and improve the chances for graduation of students.

A satisfactory organizational enrollment management model can occupy a strategic niche as a prominent provider of good management strategies, important academic support services (for students and faculty), and strengthened opportunities for student success within the university. It can gain prominence by integrating relevant units within a focused organizational structure, building collaboration and partnerships, and strengthening institutional chances for profitability. Focused efforts to create an appropriate organizational model can result in the development of a sustainable competitive advantage that will benefit the institution and its students.

8

Developing a SEM Plan

Robert J. Massa

"I have a plan…I have a plan…."
(Scarecrow to the Tin Man and Lion at the Witch's Castle in *The Wizard of Oz*)

Attempting to manage enrollments strategically without a plan is like driving down a country road at midnight without headlights: it is possible, perhaps, but dangerous. Veteran admissions and financial aid professionals have accumulated years of experience and often act instinctively with tactical approaches to recruitment and pricing. Student affairs professionals understand the need to connect with students and frequently initiate new developmental programs to help them succeed. But putting all of this together, while considering changing environments, internal realities, and external pressures, requires thoughtful planning, systems thinking, and careful analysis. The Scarecrow in the *Wizard of Oz* had a plan, but it was developed at the spur of the moment in response to a crisis. Many of us plan that way because we do not carve out the time to do it right. Clearly, it is preferable to be proactive and purposeful in the consideration of multiple strategies to achieve complex and interrelated objectives.

Why Plan?

The year is 1990. I am waiting for my Eddie Bauer catalog to arrive so I can call the 800 number to order a gift for my wife from the comfort of my home. As her birthday approaches, I get nervous: no catalog. I scramble through old magazines, looking for an Eddie Bauer (or any!) catalog. No luck. I drive to the mall and find myself in a department store. I find a gift; it is not what I really wanted, but it will have to do. I settle for second best.

Fast forward ten years. I go to the Eddie Bauer Web site to explore options and order a gift. I find that what I want is out of stock. The next day, on my way into the city, I use my cell phone to call the Eddie Bauer store in the mall (even Eddie Bauer recognizes that people like to shop in person when they can). The store has what I want. I give my credit card number and ask the woman to hold the item until later that day when I can pick it up. Mission accomplished.

The world has changed enormously in the last ten to fifteen years. Colleges and universities that do not respond to these changes with careful planning will not succeed. Eventually, they will fall so far behind their peers that they will be forced to plan to survive. To prosper, institutions must plan early and frequently. They must constantly assess their progress. And they must be nimble enough to act quickly and to adjust their plan when the environment changes again, or when goals are not met.

We must plan not only to survive but to thrive in an increasingly interconnected world. The changes we see from our vantage point in higher education are exacerbated by this interconnectedness (Bryson, 1995). We know from experience, for example, that increasing foreign oil prices in 2000 have had an impact on the American economy, and thus on students' ability to afford our tuition and fees. What can we do about that now?

Rapidly changing external and interrelated forces require us "to think and act strategically as never before" (1995). When staff say they have the time to either plan or do, I tell them they must do, plan, and do. We are not fully in control of our destinies, but we can use knowledge of our environments to maximize our control of outcomes. If we do not, our current "doing" will prove in the long term to have been a a waste of time.

Who plans?

Many different elements must come together in a coordinated way for strategic enrollment management planning to be effective. None is more important than strong leadership. Plan leaders must be committed to listening carefully, thinking critically, and acting boldly (Sevier, 1998). They must ask many questions, demonstrate an understanding of how uncomfortable change can be, and engender trust from those they must lead. But they also must be able to articulate a clear direction and goal for the institution. They must communicate a sense of purpose and create a "compelling reason for being" (Beckwith, 2000). It is this "compelling reason" that motivates people to achieve.

In order to develop trust, as well as to secure buy-in, it is helpful to create an institution-wide steering committee to oversee the planning process (Napier, 2000). The group assembled should include experts in enrollment and student services as well as faculty and staff in other administrative areas. Members should be respected for their roles in the campus community. Depending on the culture of the institution, it might be advisable to select a faculty member to serve as chair, or perhaps a faculty member and an administrator could serve as co-chairs.

Planning will prove successful not only if the process is structured well and committee members trust each other, but if the ultimate outcomes are those intended within the specified budget and timeframe. In this regard, it is important to include all stakeholders in the planning process. Regular updates from the committee, drafts of sections, e-mail requests for feedback, and campus-town meetings are effective methods for generating stakeholder buy-in. As Hossler, Bean and Associates (1990) state, "The more people involved in decision making, the greater the commitment to implementing the decision." Extensive sharing during plan development is critical because enrollment management ultimately involves almost every member of the campus community (1990).

It is tempting for enrollment managers who want to move quickly at a tactical level to "write the plan" themselves, with some input from their immediate staff. In fact, this is how I wrote my first "SEM plan" in 1987. I quickly learned that the only thing "strategic" about my plan was the development of multiple strategies to achieve certain limited recruitment objectives. During my second comprehensive planning process, about five years later, I involved the staff directors of every enrollment office and served as a resource to the student affairs division that was developing a separate plan. In 1999, the planning finally took place at the college-wide level; the results have been gratifying. An institutional understanding of strategic issues and a systems approach to achieving objectives create a synergy that fosters success because it sets the institution moving in a direction that is, for the most part, uniform and focused.

An institution-wide strategic enrollment management planning effort takes time and, certainly, patience on the part of the enrollment manager. Stakeholders need to be educated and "brought along" in the process. But when they are, their potential for contribution is enormous, and the results clearly justify the time invested.

What Is a Strategic Plan?

In their landmark book on strategic educational marketing, Kotler and Fox (1985) define strategic planning as "the process of developing and maintaining a strategic fit between the institution's goals and capabilities and its changing market." Colleges and universities have been planning for years and have made numerous attempts at strategic planning throughout the last decade. In the year 2000, approximately 70 percent of American colleges and universities had some form of strategic plan (Sevier, 2000). Not all strategic plans address enrollment management, but enrollment management cannot work without strategic planning.

Strategic planning also has been defined as "a dynamic means of describing the organization, its goals, gaps to achieving them, and ways to overcome the gaps for long-term viable success" (Stryker, 1997). As applied to enrollment management, strategic planning provides an institution-wide future perspective and broad objectives which, in the aggregate, will help bring about that future. The strategic enrollment management plan will use this information to determine how to implement and afford that future, as well as how to coordinate implementation with all of the stakeholders. In other words, a strategic enrollment management plan operationalizes the institution-wide strategic plan.

As it applies to enrollment management, strategic planning:

- begins with a clearly defined vision as it relates to institutional mission;

- performs an internal and external environmental analysis and forecasts future trends;
- recognizes and articulates current position and direction;
- acknowledges problems and constraints as well as opportunities and strengths;
- outlines objectives and desired outcomes and articulates strategies to achieve them;
- determines a budget to achieve each outcome;
- assigns responsibility for strategies to specific individuals; and
- sets forth an evaluation mechanism to measure progress and redirect efforts if necessary.

Enrollment planning must be strategic and should be institution-wide and dynamic. It is also extremely dependent on internal and external environmental influences. Hossler, Bean and Associates (1990) note that strategic enrollment planning directly affects institutional planning in two ways: resources (net tuition or head count allocations) and the quality and character of the student body (which affect academic life). In this regard, institutional strategic planning ought to have an enrollment management focus.

Before beginning the planning effort, it is critical to identify the topical areas to be included in a SEM plan. A comprehensive effort will require that the following be addressed:

Marketing and recruitment—including an analysis of key market areas, institutional position, and targeted and segmented recruitment strategies.

Pricing strategies—including econometric analyses of the demand curve at various rates of discounting and need-/merit-based financial aid policies.

Academic programs—articulating "niche" programs, conducting a demand analysis of current programs, and identifying competitors' successful programs.

Retention—understanding where and why your institution retains and loses students and identifying institutional weaknesses which must be addressed to improve retention.

Advising—articulating how students are guided through the maze of curricular and career choices and assessing whether outcomes are consistent with plan objectives.

Academic assistance—identifying student needs for tutoring and the structures to meet demands.

Cocurricular programs—taking inventory of the planning and support provided to student organizations to engage them in the life of the institution beyond the classroom and assessing the effectiveness of these programs in terms of student satisfaction and lifetime affiliation.

Data and technology—identifying what trends need to be understood at the institution to better serve students and to meet students' expectations in a timely fashion.

Budget—specifying the resources you need to accomplish institutional objectives in each area and identifying funding priorities and sources.

Armed with the necessary content areas to be addressed in the SEM plan, you are ready to begin the process.

Getting Started

Traditional organizational planning was mostly a "top-down" activity in which data were analyzed, inferences made, and results used to justify decisions. Financial resource availability typically drove the planning process. In strategic enrollment planning, the process depends not only on the analysis of data but also on the collective, intuitive insights of planning committee members. It requires frequent subcommittee work during which members consult with line managers, faculty, and staff to gather input and additional insights. A result of the planning process is the charting of strategic directions for the institution. Most important, the plan determines where resources will be allocated in order to achieve the strategic objectives.

In his unpublished guide to long-term organizational viability, Stryker (1997) describes five keys for effective strategic planning:

- Focus of the plan is on subsequent implementation.
- The plan allows for ordered responses to better handle uncertain/turbulent environments.
- The planning process stimulates continual organizational questioning toward meeting existing or new challenges.
- Planning elements become intertwined so synergistic outcomes can be achieved.
- The planning process ensures that various stakeholders provide frequent input/feedback.

In "The Sound of Music," Maria admonishes the children to "start at the very beginning, a very good place to start." In fact, this is what we must do as we prepare for our SEM plan. Begin by identifying your institution's enrollment challenges; cataloging the recruitment and retention results of the past several years; and assessing where your competitors are gaining an advantage. You may have to educate other key administrators and faculty—a critical effort if you are to gain their support. As you develop this support and ask opinion leaders to serve on a planning committee, the scope of the SEM planning initiative will become institution-wide. Of course, if you have the support of your president from the outset, he or she can form the committee and set a campus-wide planning process in motion.

As you begin, you must take special care to fit the process to the institution, to make it comprehensive and inclusive. There must be a clear "champion" for the plan—perhaps the president or chief academic officer (I do not suggest the enrollment manager because the plan must be perceived as institution-wide, not just the "property" of one division). Make certain, as well, that you initiate discussion among key decision makers on campus of those issues or activities most important to the entire community. Get those key decision makers to commit to the process.

There certainly will be "bumps" along the way. For example, committee members can spend hours deliberating over a particular choice of words or minute distinctions in the substance of a strategic direction. But as Bryson (1995) says, "If the going gets tough, keep in mind the potential benefits of the process." Although it is true that the plan's success will be measured by its implementation and resultant outcomes, it also is true that the process helps bring people together to consider objectives and strategies that are key to institutional viability. This exercise is valuable itself in an academic community. But there is no substitute for results. Be careful of the SEM committee that "over-analyzes" data prior to developing or implementing strategies. One can become so focused on gathering data that one loses sight of the need to achieve the result.

In defining strategic planning, we outlined suggested components thereof. In order to begin, we need to ask the following questions which are related to the process steps described above:

- What is our purpose?
- Where do we want to be?
- Where are we now?
- What assumptions are we making?
- What do we hope to accomplish?
- What gaps do we find between the current and desired situations?
- Which courses of actions must we take to close the gaps?
- How well are the goals being met?
- What unexpected occurrences might happen, and how will we handle them?
- How will the organization members organize, interface, and cope with change in the planning cycle?

The answers to these questions must begin at a high level (e.g., "to enroll better students" or "to increase the institution's national visibility"). As you work your way through the process, you should develop more specific answers (e.g., "to increase the win ratio from our top three overlap schools to 50 percent" or "increase applications in tertiary markets by 15 percent in two years"). These questions and their answers are designed to guide discussion of every objective you will identify in the SEM planning committee.

The "Vision Thing"—Mission and Direction

A strategic enrollment management plan must begin with the institution's mission. If the SEM plan is being developed within the division of enrollment management (but with broad campus representation), it is acceptable to weave the institution's mission into that of the division. Sevier (1998) defines "mission" as a statement that describes founding and current principles and philosophies. A well-developed mission statement should be concise and describe the core, shared values of the institution and/or the division.

The vision statement is critical to the plan because it sets the institution in a direction for the future. The statement must reflect the institution's values and philosophy and define its future aspirations. Bryson (1995) defines "mission" as clarifying an institution's purpose and "vision" as articulating what an institution should look like in the future as it fulfills its mission.

Vision statements also must motivate faculty and staff and provide a sense of purpose around which they can rally. Such statements cannot be written by committee, but as with the plan, input should be solicited from all stakeholders. A college-wide plan should include a broad vision statement; a plan that is developed primarily within the division of enrollment management (EM) should include a vision for EM at the institution.

In many ways, a vision statement is an announcement of high-level goals. An example from a SEM plan might be: The division of Enrollment Management must operate interdependently with others, sharing information of value to the college as a whole, and working with our colleagues to achieve a cohesive, supportive, "seamless" network for students from the date of their first inquiry through graduation and beyond.

This is a somewhat ambitious vision or high-level goal. Some risk is involved: We may not be successful. But as a cornerstone of the SEM plan, the vision must set high standards to motivate all involved. Imagine if, in 1961, President Kennedy had said, "I think, before the decade is out, we might want to send a man to the moon and bring him safely back to earth, but we'll decide if this is reasonable only after all the details are worked out and we are certain we can do this." This would not have been motivating to others, nor would it have set a tone of confidence in the future.

Sevier (1998) reminds us to involve internal and external stakeholders (faculty, staff, alumni, trustees, community leaders) in the development of the vision. Without their involvement, the vision might never take hold. Sevier asks us to share the vision broadly, as a vision not shared is not really a vision at all. A good vision is:

- Future-oriented.
- Utopian—clearly offering a better future.
- Appropriate—consistent with mission, history, values, and culture.
- Reflective of high ideals and standards of excellence.
- Clear in purpose and direction.
- Able to inspire enthusiasm and encourage commitment.
- Ambitious.

A vision must be bold. It must "set the tone." It must motivate. It must encourage all members of the campus community to achieve. The best vision statements allow us to "stretch to success." They unify us in a common purpose. In fact, they help lead the institution in the direction it must go.

Assessing the Environment

Performing an analysis of the external and internal environments is essential to strategic enrollment management planning. Bryson (1995) notes that an institution cannot be effective over the long term unless it fully understands its own strengths and weaknesses in light of the external opportunities and threats it faces.

Thirty years ago, as the baby boomers descended upon colleges and the impact of the Higher Education Act began to be felt, colleges grew and applications were plentiful. Admissions officers—particularly at the highly selective colleges—served more as gatekeepers and less as recruiters. Financial aid, primarily in the form of federal loans, provided opportunity and access. Some academic scholarships were available, but these were used to reward true merit and not to "buy students" from a competitor. More than one academic dean cautioned newly arrived freshmen to "look to your left and look to your right: one of you will not be here next year."

Indeed, times have changed. Imagine how a college admissions office, functioning as it did in the 1970s, would have fared in the 1990s. An institution that refused to change its approach to admitting students would experience decreases in applications, student quality, and tuition revenue. Unfortunately, too many institutions responded too slowly to the changing environment and were caught short. SEM planning seeks not only to redress past errors but to project for the future.

The future is certain to prove competitive. Successful recruitment and retention of students are essential to institutional survival. But the environment is changing yet again. The education industry is upon us. For-profit institutions offering college degrees that cost less and that are convenient and consumer-oriented will pose a threat to traditional colleges. If we watch passively, distance education also could threaten our survival, though the technology clearly provides us with opportunities. We must carefully analyze the current and projected external environment by recognizing that our traditional competitors (similar colleges and universities) may not be competitors at all in several years' time.

In performing an external environmental analysis, we must be thorough in identifying threats and opportunities to fulfilling our mission. In this regard, it is particularly important to be creative—that is, to look at events and activities from different perspectives. Hossler, Bean and Associates (1990) warn that people consistently fail to recognize new things and that they see only what they have seen before. Thus, a regional competitor starting a new, popular program might be perceived as a threat rather than as an opportunity to develop a distance education partnership to bring that program to our campus. However, a word of caution about environmental analyses is in order: They are never complete. We must continuously assess external and internal factors and how they affect our ability to achieve our objectives. Consequently, an effective database which can be updated easily is key to having useful, current information. Capturing and storing information in this way also will enable us to use the data later as performance indicators.

For enrollment managers, an external analysis must consider the opportunities and threats present in factors such as: the economy; demographic trends in primary, secondary, and tertiary markets; the popular press and its role in "rankings"; the availability of technology to convey and manage information; the shift to a service economy; local conditions; price; regional market competition; merit aid and discounting; consumer attitudes ("I want what I want when I want it"); the impact of the education industry; gender imbalance in higher education; non-education options for high school graduates (e.g., the "dot-com" industry); state and federal approaches to higher education finance; and movement in the nation's high schools toward concurrent high school/college enrollment and more advanced placement courses. This list is not meant to be exhaustive but rather to provide examples of the types of factors a SEM plan must take into account.

An internal analysis is necessary in order to assess the institution's core competencies (Bryson, 1995). Most faculty and staff think they know all there is to know about their institution. Consequently, it is difficult to conduct a thorough, critical, and creative internal analysis. Planners often trivialize the internal analysis, but it is perhaps the most essential step of all because it categorizes an institution's resources, present strategies and processes, and performance. Through this process, an institution's strengths and weaknesses are delineated as enabling or preventing a successful response to the external environment.

Internal factors to be assessed in a SEM plan include: faculty and staff commitment; work environment; internal communication; strength of academic programs; strength of cocurricular programs; facilities; student residential trends;

quality, diversity, and geographic mix of the student body; student satisfaction; student course-taking patterns; faculty/staff workload; discount rate and net tuition revenue trends; non-tuition sources of revenue and the size of the endowment. Again, these are examples of factors to be considered as we begin to analyze the internal environment.

Analyses of the internal and external environments are conducted to measure our progress to date in fulfilling our mission. We do this by collecting facts and examining trends in order to define our present condition and future direction. Bryson (1995) and others suggest using the SWOT (strengths, weaknesses, opportunities, threats) analysis as a process for conducting the analyses by asking four questions:

① What major external or future opportunities do we have?
② What major external or future threats do we face?
③ What are our major internal or present strengths?
④ What are our major internal or present weaknesses?

Matching the external assessment with an internal profile permits us, later in the process, to define our strategic objectives. However, before we can formulate our planning objectives and goals, we must articulate the assumptions we are making about the environment and our ability to respond.

Planning Assumptions

We assume all the time. When we plan an outing, we assume the weather will cooperate. When we leave our car at a train station, we assume the trains will be running when we wish to return. When we develop a SEM plan, we assume that events and factors five years hence will be similar to what they are today. But what if they are not? Understanding and articulating the assumptions we make will help us clarify the objectives we develop and enable us to generate strategic contingencies should our assumptions prove inaccurate.

As you perform the environmental analysis, be aware of the implicit assumptions you are making. Examples include: the availability of technical support; a growing local and national economy; no dramatic shifts in the marketplace or in how our competitors respond (the notable exception again is distance education); the availability of human and financial resources to implement the plan; strong and stable leadership during the plan's implementation phase;

continuity of the institution's character; ability of the institution to respond to shifts in demand in ways that are consistent with its mission; investment of alumni in the institution's future and its welfare; and relationship of the price charged and net tuition revenue generated to that of competitors.

The benefit of articulating these and other assumptions will be realized in the assessment and evaluation of the plan's objectives as time passes. The assumptions you list will affect the formulation of your objectives and will serve as checkpoints as you update your plan (Stryker, 1997).

Formulating Objectives and Identifying Strategic Issues

Having gained a firm understanding of your philosophical framework and future direction; having studied the internal and external factors affecting your success; and having articulated the assumptions underlying the plan, it is time to develop the full range of possible objectives for the institution. The objectives should emerge naturally from the portion of the plan already completed.

In many ways, your planning objectives are at the core of the plan. These are what you need to accomplish in order to thrive. Remembering that you need broad support to be successful, institutional objectives must be easy to understand and challenging, yet achievable. Objectives are realistic statements of what you intend to accomplish.

In discussing SEM planning, the terms "objectives" and "goals" are often used interchangeably. In fact, they both connote what an institution wants to accomplish. But goals are usually of a general nature, and objectives, more specific. Sevier (1998) advises planners to work from the general to the specific. Once general goals are listed, it is easier to define objectives in greater detail. He also suggests—both for the sake of buy-in and to maximize the chances for success—that we begin with a small number of goals (five or six) and that we keep these relatively uncontroversial. Finally, Sevier advises, "Under-promise and over-deliver." This will help you gain the credibility you need to be more aggressive in developing future objectives.

A SEM goal, then, might be to attract eager and talented applicants for admission who ultimately will enroll and graduate. Specific objectives that support this goal would be:

- develop a distinctive market position by emphasizing international education opportunities, and communicate this consistently;
- attract and enroll talented and diverse students of high academic quality who have demonstrated the potential to contribute to the campus environment (two-thirds in the top 10 percent of their high school class; scores of 1250 on the SATS; 15 percent minority);
- increase the willingness of families at all income levels to invest in the educational experience our institution offers (decrease percentage receiving financial aid from 65 to 55 percent).

Once again, objectives should flow from your mission and vision and should be related to the realities your institution faces in the internal and external environment. Stryker (1997) defines the "objectives" section of the plan as the "fulcrum" between describing an institution's environment and acting upon this description through the development of strategies. But before we "operationalize" the plan, we must address the strategic issues facing the institution.

Strategic issues can be thought of as either opportunities or barriers to achieving our stated objectives. Bryson (1995) takes this one step further: He claims that strategic issues are fundamental challenges or policy issues that affect an institution's mission. It is here that we discover the gaps between our current position and our future direction. If we are to close these gaps, we must overcome the barriers or take advantage of the opportunities. Bryson suggests that identifying strategic issues should provide useful clues about how to accomplish our objectives.

Examples of strategic issues for a SEM plan include:

- Confusion among the general public as to the meaning of "liberal arts."
- Low salaries in admissions, resulting in high staff turnover.
- A decade of budget cuts in student life, resulting in student dissatisfaction.
- Heavy reliance on discounting to enroll a class.
- Leadership and staff are motivated to take risks to effect positive change.

These are at once environmental and strategic issues because they portray specific realities that need to be addressed in order to proceed to the strategy development stage. In identifying and discussing these issues, we begin to put in place the strategies that will accomplish our objectives.

A reminder: Broad discussion is required in the setting of objectives. This is likely to be the most contentious part of the planning process, particularly when it becomes clear that not all objectives can be accomplished simultaneously. The ordering of the objectives—and the funding implications of that ordering—could inspire lively debate within the planning committee and throughout the institution. Focusing on the most pressing issues (for example, student quality and net tuition revenue) and reminding planners and stakeholders of the need to do so (lower quality affects level of teaching and retention; net tuition revenue affects ability to fund programs, people, and facilities) will help move the process along.

Operational Planning: Developing Strategies, Timetables, Assignments, and Budgets

The planning process thus far has been reflective: who are we; what should we be; what in the environment will have an impact on our ability to get there; what specific objectives must we fulfill to become what we want to become? Having answered these questions, we now are ready to embark on *operational planning*. Essentially, this part of the SEM plan will explain who is to do what, when, and for how much.

A strategy is a course of action we must pursue in order to achieve an objective. Strategies need to be detailed enough to provide direction, but they do not have to describe every step in the process. Given time and financial constraints, we should keep the number of strategies manageable.

Bryson (1995) defines strategy as "a pattern of purposes, policies, programs, actions, decisions, and/or resource allocations that defines what an organization is, what it does, and why it does it." In the aggregate, strategies provide pathways to address an institution's challenges in ways that are consistent with its mission and vision.

We must put thought into the development of strategies to achieve objectives. The process requires careful analysis of how much time is required (given ongoing operational responsibilities) and how much it will cost to successfully implement the strategy. This is not a matter of simply brainstorming and achieving group consensus. Strategies must be designed to link the institution to its internal and external environments in ways that will close the gap between where the institution is now and where it wants to be.

Figure 8.1: Development of SEM Strategies

Operation	Admissions		
Objective	Attract & enroll talented and diverse students of high academic quality who have demonstrated the potential to contribute to the campus environment.		
Strategic Issues	Confusion in public about the meaning of the "liberal arts"—is "just" humanities, no science, unrelated to getting a job, limited choices of majors		
Strategies	**Timeline**	**Budget**	**Assignment**
1) expand applicant pool by 25% by more targeted recruitment activities using geodemographic tools; segment messages for audiences who understand the liberal arts (areas of the country where students attend liberal arts colleges) and for those who do not (areas with a high proportion of university attendance)	Use geo-demographic coding by 5/15. Run codes again on 7/15 and 10/15; Create segmented messages by 4/15	$12,000 for coding service; $1,000 for message development. Mailing cost included in regular budget	Seth for coding; Bob for message development
2) develop contracts with international advising centers and US Consulate education offices in the following countries: Korea, Turkey, Singapore	By 9/1	$1,000 for phone & mailings	Brian
3) develop partnership programs with urban school districts to engage teachers in school to college transition programs; ask students to write an essay nominating their best teacher for a teacher of the month award	By 1/15	$10,000 for teacher recognition program	Susan

Timetables are essential because strategies can build on one another. They also help us evaluate our progress as we assess the effectiveness of the plan. Cost estimates are critical and may, if accurate, help us order responses and decide which strategies (given finite resources) are likely to be of greatest value in moving the institution forward. For example, if an objective of the SEM plan is to increase the number of full-pay international students by 50 percent, it certainly would be less expensive to develop relationships with schools and students by email and phone than it would be to devote three weeks to international travel. If such "armchair recruiting" could produce a similar increase for a fraction of the cost, it would be of greater value.

Finally, if strategies are not assigned, they will not be accomplished. The SEM plan must specify who will be responsible for overseeing implementation of the strategy. This is an easy step to overlook, but doing so will almost guarantee that the strategy will become just another "good idea" that was never implemented.

Following an earlier example of a SEM objective, we can create a template for the complete development of strategies (see Figure 8.1).

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This is a simple example from one operational area (admissions) using one objective. Each operational area within enrollment management will have its own series of grids, developed jointly by the planning committee with input from staff. Typically, one should use one grid per objective; this enables planners and those responsible for implementation to track progress and assess effectiveness. Note that there are many ways to structure a SEM plan: For example, while I do not use this template for the descriptive portions of the plan (mission, vision, environmental analysis, assumptions), I have found it useful in the operational section of the SEM plan. This is a matter of personal preference. The final step in the planning process, which also should be included on the grid, is to define the performance indicators necessary to measure effectiveness.

Evaluation, Assessment, and Measuring Progress: Key Performance Indicators

A strategic enrollment management plan is a living document; the planning process is never really complete. In order to be effective, a plan must include a mechanism to evaluate the success of its implementation. The concept is simple: plan, implement, evaluate, plan. As the environment changes, strategies that worked once may no longer be viable, and strategies that seemed appropriate during the initial planning phase may fail for other reasons. This is why it is critical to manage the plan on a regular basis. Of course, changing circumstances also could mean that general goals or specific objectives need to be revised.

Bryson (1995) cites four reasons that strategies cease to work:

① Insufficient resources for implementation.
② Problems change, requiring new strategies.
③ Too many strategies are brought to bear on one problem, and resultant interactions produce undesirable results.
④ The political environment may shift with changing leadership or changing priorities.

The first step in evaluating a SEM plan is to assess each objective and attendant strategy with respect to these four situations.

In assessing our objectives and strategies at regular intervals, we help our institutions remain responsive to changes in the environment. A SEM plan developed in 1997 probably did not include strategies to deliver course content via distance learning. While we do not have to start from ground zero because of a major environmental shift, we clearly must introduce this factor in our revised SEM plan. Having the planning committee periodically re-assess our basic assumptions, objectives, and strategies is one way to keep the plan current and relevant; it also keeps key stakeholders engaged in, aware of, and supportive of the plan.

Implementation of the SEM plan will produce results that will have an impact on the next round of planning. Stryker (1997) claims that three activities must occur in order to evaluate and subsequently revise the plan:

- Connections between the planning process itself and what was implemented need to be apparent (that is, if the plan specified interdependent strategies, not all of which were implemented, then the results are not likely to be what was wanted).
- How the results fit those connections must be understood.
- Periodic planning team meetings must occur to create stronger ties between the outcomes and future planning.

According to Sevier (1998), there are two basic levels at which the plan must be evaluated: First, have we adhered to our timetable? Second, has the plan helped us achieve our major goals and objectives? The second is certainly the more complex of the two levels. However, when a SEM plan includes specific targets, this level becomes easier to evaluate. For example, if your objective was to increase freshman to sophomore retention from 80 to 85 percent in three years, and your strategies helped produce an 86% retention rate, then your objective was met. Sevier says that without quantifiable objectives, "measuring progress will always be a guess at best."

In addition to objectives written as quantifiable targets, we also should establish key performance indicators (KPIs) to assist in the evaluation of the overall results of the SEM plan. Here, the baseline should be established (e.g., 3,400 applications for admission) and the goal articulated (e.g., 5,000 in four years requires 10 percent growth per year) for each KPI. Among the KPIs for the evaluation of the SEM plan are: admission prospects; admission applications;

acceptance rate; yield; average SAT score and class rank; minority student enrollment; international student enrollment; geographic diversity of prospect, applicant, and enrolled pools; financial aid applicants in each pool; average institutional grant aid awarded; discount rate; enrollment by major; retention and graduation rate, by class; and percentages of recent graduates employed and in graduate school. A more comprehensive SEM plan might include KPIS for alumni relations and fund raising, such as the number of alumni returning for reunions and the percentage of the alumni body that contributes financially to the institution (the latter, in particular, is an indicator of institutional strength that is used to determine college rankings).

Once the KPIS are established, the plan's success can be monitored in a broad way by looking at these indicators on a regular basis. It is important to share the KPI data with the SEM planning group as it considers whether to make changes in the strategies or to refocus the objectives.

The evaluation process also must track the cost of implementation. A SEM plan with a major goal of increasing net tuition revenue will be deemed successful if that occurs within the budget specified by the plan. But if the admissions office spent twice as much to recruit the class by implementing new strategies, the gain could be negated.

In performing the evaluation, bear in mind several of Bryson's (1995) guidelines:

- Stay focused on what is important: how the institution's mission and vision will be fulfilled.
- Focus on indicators of success or failure; pay attention to the indicators that were used to argue for the strategy at its inception.
- Review the issues that helped form the initial strategies to determine whether they are still relevant.
- Use review opportunities to develop new strategies to respond to changing conditions.
- Create a review group.
- Stay fresh; build energy and enthusiasm for continuing the strategies that produce results and for identifying new strategies to replace those that are not effective.

Strategic enrollment management planning is not an exercise meant to result in a written document that can be proudly displayed. It is a way of managing our enrollment strategically in accordance with our institution's mission and vision. To serve this role, assessment and evaluation must be ongoing, and the SEM planning committee must continue to be involved in order to adjust the plan to changing conditions.

The Time to Plan

Although the planning timetable differs from institution to institution, my experience at both a university and a college suggests that a full year is necessary. If we are to be comprehensive in our planning and if we are to secure broad buy-in, it is essential to take the time to do it right. That means spending an entire morning brainstorming mission and vision points and then asking a small group to write a draft of these two statements that can be shared and refined at a subsequent meeting. Weekly meetings of about two hours each can be used to set the parameters of the environmental analyses (one meeting each on the external and the internal environment may suffice). Data to substantiate the importance of the environmental factors should be collected by subgroups between meetings, and two more meetings might be required to complete the SWOT analysis. Articulating the planning assumptions undoubtedly will require one additional committee meeting.

The most time-consuming activity will be the formulation of objectives and strategies. During a first attempt at SEM planning, keep these simple and direct. Assign subgroups of your committee to address objectives and issues in each content area, as described earlier in this chapter. Give each subgroup a week to submit a draft of objectives and issues. Share these with the entire committee, and devote one meeting to each content area. (This could take up to two months, depending on the complexity and detail of the objectives.)

Operational planning should be "decentralized" to the departments when possible, using representatives of the SEM committee as facilitators. This is the phase during which strategies are articulated, assignments made, budgets determined, and evaluation mechanisms put into place; it is likely to take up to four months. The SEM planning committee should convene periodically for presentations from departments, which should provide feedback and overall direction.

Finally, once all operational plans are collected and reviewed, the committee must devote the final two months of the process to compiling, editing, costing out, and circulating the entire planning document. Implementation and follow-up are ongoing and will require regular monitoring (at least twice each semester) by the SEM planning committee.

A Final Word

Strategic enrollment management planning requires strategic and systems thinking. Shirley (1978) explains the difference between what he calls *tactics*—or *implementation decisions*—and actual *strategy*. Strategic decisions emerge from thinking that is of the first order. They provide direction to lower-order tactics. In fact, strategic thinking requires a systems approach—that is, it requires an ability to look at the entire institution as a whole, understanding its mission and values, relating its goals and objectives to those core values, and providing programs and services in line with the mission. Strategic thinking and decision making therefore provides cohesion to the entire institution. It understands the institution's "customers" and looks for ways to differentiate the institution in the marketplace. It informs a tactical-level approach.

The strategic enrollment manager must always put students at the forefront of planning. The size of the student body, its characteristics (quality, diversity, geographic representation, retention and graduation, and student interests), trends in recruitment and enrollment (application numbers, acceptance rates, yield), and success against competitors should be key benchmark indicators of any plan. But strategic enrollment managers also must consider key external and internal indicators: economic factors, high school graduation rates by region, minority student population, public attitudes toward higher education and how these translate into demand, faculty opinions, technology infrastructure, and condition of the campus, to cite a few. Keeping one's ear to the ground is critical and will enable one to plan proactively.

The success of a SEM plan will be determined not only by the measured outcomes, but by the process itself. Developing trust among stakeholders is essential, and great care must be taken to do this during the planning process. Trust and buy-in will evolve through open conversation, broad sharing, always framing potential strategic direction in light of the institution's historic mission and values, and careful listening. The strategic enrollment manager needs others to implement the vision and direction. In failing to pay attention to the building of trust through genuine collaboration and open feedback, most plans themselves will fail.

As noted above, planning is not an end in itself, although some institutions seem to be forever in a "ready, aim, aim, aim" state. How you move from planning to implementation depends on the current health of your institution. If your institution is competitive and healthy, SEM planning can be reflective and future oriented, and implementation can wait—perhaps—until the full scope of the plan is realized. In most cases, however, institutions will need to implement strategies as they become ready—that is, as specific objectives emerge, plans to satisfy those objectives are developed thoroughly and implemented before other objectives are fully developed. (This could raise some issues with respect to competing and countervailing strategies in the future, but that is why we evaluate continually.) Successful planning and implementation requires some degree of risk taking, as well as the ability to "shift gears" when indicators are not in the direction the institution wants or needs to go.

Finally, successful planning and implementation requires leadership and vision. The strategic enrollment manager must provide that, but he also must enlist the academic dean, provost, and president in the process. Harry Beckwith (2000) has written a wonderfully down-to-earth book entitled *The Invisible Touch: The Four Keys to Modern Marketing* in which he talks about "the fallacy of leadership." "When all is said and done," he quotes, "more gets said than done."

In providing the leadership to create, develop, and implement a strategic enrollment management plan, we must motivate faculty and staff to be bold and ambitious and to believe. Learning from Beckwith, we must offer potential goals and objectives which are so compelling that people manage themselves to create strategies and achieve the desired results. Beckwith tells us that when leaders manage by articulating a compelling purpose and creating excitement, people organize around the purpose and work relentlessly to achieve it. "People don't lead," Beckwith advises, "purposes do."

Strategic enrollment management planning will work if people want it to. Organize around a compelling purpose, be careful to build trust and secure buy-in, be consistent with your institutional mission, carefully assess the environment, keep your goals and objectives manageable and to the point, and constantly evaluate your progress. As the higher education landscape shifts, careful and purposeful planning and implementation will help our institutions thrive in the years ahead.

9

Garnering Resources and Building Infrastructure

Jim Black

You can sculpt an organizational structure that is designed perfectly for your institutional enrollment needs; you can draft a strategic enrollment management (SEM) plan that has the potential to propel your school to another competitive level; but if you do not have the resources and infrastructure to support both, strategic enrollment management will be more myth than reality. Resources and infrastructure are the fuel that drives the SEM engine.

Too often, enrollment managers concede defeat before the battle has begun. In the hallways and meeting rooms of enrollment conferences everywhere, the sounds of "wailing and gnashing of teeth" reverberate. "My supervisor doesn't support me…." "The president doesn't understand enrollment management…." "The institution has no resources…." "It's not an institutional priority…." "I'm not at the table." With an institutional imperative such as student enrollment, very few forces are impenetrable. Archimedes once said, "Give me a fulcrum and a lever long enough, and I can move the world." Student enrollment, if used properly, is a sizable lever.

Creating a Sense of Urgency

The following is an excerpt from the monograph "Navigating Change in the New Millennium: Enrollment Leadership Strategies" (Black, 1999):

> *In his book* ***Teaching the Elephant to Dance,*** *James Belasco compares organizational culture to the learned behaviors of circus elephants. From a young age, a circus elephant is shackled and staked to the ground. It learns to walk in circles. Even when it grows stronger—capable of removing the stake—it continues to move in circles. People in organizations are much the same. We learn behaviors and repeat them endlessly—never challenging what we have learned—never stepping outside of our comfort zone.*

Belasco claims this mindless conformity to the known can only be altered by creating a sense of urgency: setting the circus tent on fire. Of course, the trick is setting the tent on fire without burning it down. For enrollment managers, a sense of urgency is most likely to take the form of a decline in enrollment. Other possibilities include a decline in net revenue, increased competition, external pressure to improve outcome measures, implementation of a new computer system, or some compromise of student financial or academic records.

Regardless of the source, no sane enrollment leader relishes the thought of any of these triggering events. Nevertheless, it is nearly impossible to effect substantial change without a sense of urgency. When bad things happen (and they always do), the savvy enrollment manager finds an opportunity in the midst of chaos.

The enrollment manager possesses several useful tools to create a manageable sense of urgency. Probably the most powerful is an *environmental scan*. An environmental scan is a holistic look at the internal and external factors that may affect an institution's enrollment. The assessments described in Figure 9.1 provide data that can be distilled into a presentation for key decision makers on campus. To maximize effectiveness, the presentation should be relatively balanced between opportunities and threats; for every problem conveyed, there should be a corresponding solution. It should be delivered as a story that captures the institutional context and teaches the audience about the multiple variables that influence enrollments.

Figure 9.1: Environmental Scan Assessment Tools

Assessment Tools	Research Questions
Enrollment Trends	What have been the enrollment patterns (e.g., prospects, applicants, admits, enrollees, yield rates, attrition rates, graduation rates, stop-out rates, dropout rates, suspension rates, transfer rates, return rates), and what might these patterns tell us about the future?
Demographic Trends	What are the demographic trends that might affect future enrollments (e.g., population rates by ethnicity, gender, age, and geography; number of high school graduates; college attendance rates; number of community college graduates)?
Competition Analysis	Who are the institution' s primary competitors, and what are their strengths and weaknesses relative to ours (e.g., program mix, program delivery, quality of programs, quality of faculty, academic reputation, size, location, campus appearance, safety, convenience, technology, student satisfaction, success of graduates)? In what areas does the institution have a competitive advantage?
Pricing Analysis	How does the institution' s pricing strategy compare with primary competitors (e.g., perceived cost, gross cost, net cost, perceived value, discount rate)?
Financial Aid Leveraging Analysis	How close is the institution to offering the optimal amount of aid to attract and retain students (by cell)? What adjustments need to be made to increase yield or reduce the amount of institutional aid offered?
Net Revenue Analysis	How does the revenue generated through student enrollment compare to the actual cost of educating them (salaries, operating costs, discount rates)?
Demand Analysis	What is the existing or potential demand for programs the institution plans to offer?
Capacity Study	What are the capacity constraints that will impact enrollment opportunities (e.g., space, equipment, parking, faculty loads, availability of qualified adjuncts, accreditation issues)?
Student Satisfaction Study	What aspects of the college experience are students most and least satisfied with (e.g., student services, advising, quality of instruction, quality of faculty, facilities, amenities, food service, parking)?
Image Study	What is the institution' s image among key constituent groups (e.g., prospective students, current students, parents, alumni, community leaders, potential donors)? For each constituent group, what is their level of commitment to the university?
Admitted Student Questionnaire (ASQ)	Of those students who have been admitted to the institution, what is their image of the school prior to enrolling? How does the image they have of the institution compare with the image they have of competitors? *(Produced by The College Board)*
Enrollment Planning Service (EPS)	What are the enrollment trends nationally, among primary competitors, and at your institution for SAT and PSAT takers regarding schools where scores were sent, average scores, class rank, educational aspirations, parents' educational level, major of interest, gender, ethnicity, average family income, and willingness to attend colleges at some distance from home? How does the aforementioned data track by state, geo-market, and high school? What are the profiles of your feeder high schools? *(Produced by The College Board)*
Geodemographic Analysis	Where are there more students like those who are currently enrolled at the institution (a typology based on 62 neighborhood categories defined by common lifestyles and buying habits)?

In addition to these assessment instruments, a good environmental scan will consider the impact of the economy (particularly the local economy), workforce trends, societal influences, political pressures, and a host of other factors.

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Fostering an Understanding of Enrollment Issues

Fostering a common understanding of enrollment issues is important for many reasons. First, the more faculty and administrators understand what you do and the relevance of what you do to their world, the more they will be willing to support enrollment efforts with their time and institutional dollars. Second, the more they understand about the dynamics of enrollment management, the less likely they will be to propose inappropriate courses of action; to the contrary, they will make informed suggestions and decisions. Third, the more they understand, the more confidence they will have in the enrollment management operation. When the confidence level is high and enrollment goals are not met, the collective response tends to be "What can we do to help?" rather than "Who messed up?" Fourth, a shared understanding yields a common lexicon and insightful campus-wide discussions of enrollment issues. Strategic enrollment thinking, at a high level, positions a campus for long-term enrollment success. Finally, a common understanding promotes buy-in. Apart from shared understanding, recruitment and retention will never become "everyone's business."

Information gathered from an environmental scan serves as a springboard to follow-up communications. Approach the educational process much like an internal marketing campaign. Repetition, frequency, and brevity define the effectiveness of the effort. Package information in simplified sound bytes the target audience can absorb. Remember that your audience is not made up of enrollment experts; nor is enrollment management at the center of their universe. The job of the enrollment manager is to demonstrate in a way that the audience can comprehend how enrollment issues have an impact on and interface with the higher education universe.

Repetition and frequency are as important as brevity. Think of this educational process as a long and often steep learning curve. To assist faculty or administrators along their respective learning curves, first identify the level of understanding that currently exists and then meet your learners where they are. Also, recognize their preferred learning style and adapt accordingly. For example, some will respond well to data and some will not; some are visual learners and will respond well to a PowerPoint presentation; others will prefer a dialogue. Whatever the preferred learning style, you must keep enrollment issues constantly at the forefront, articulating key messages over and over again. The enrollment management drumbeat must be consistent and constant.

The enrollment manager must look for creative and often unorthodox methods of communicating messages and engaging others in the learning experience. Some examples of delivery systems and engagement methods follow:

- PowerPoint presentations (no more than 20 words per screen, type no smaller than 24 point, and minimal special effects).
- Roundtable discussions involving deans, department heads, and faculty groups.
- Focus groups and surveys to assess attitudes toward and perceptions of institutional image, perceived value of their contributions to the enrollment effort, satisfaction with services and information provided by the enrollment management unit, etc.
- 360 degrees of feedback, an evaluation tool that solicits feedback from a variety of internal constituents on the performance of an individual (usually limited to those in leadership positions).
- Small group luncheons to solicit feedback or discuss a specific enrollment-related topic.
- Celebrations to recognize enrollment milestones and the contributions of faculty and staff.
- Interview processes for key enrollment management positions.
- Committees.
- Cross-functional teams.
- Listservs that provide information and opportunities for dialogue.
- Enrollment reports broadly distributed, preferably on the Web or via e-mail. (Include some commentary or analysis.)
- Enterprise portals that are customized according to the information needs of the user.
- A brochure that features enrollment trends and thanks those who have contributed to enrollment successes.
- E-mail or Web portal distribution of outcomes related to key performance indicators (KPIS).
- A report distributed to select administrators on the return on dollars invested in the enrollment management enterprise.

- Inclusion of enrollment highlights in the chancellor's annual report.
- Broad distribution of recruitment materials (e.g., brochures, videos, CD-ROMS).
- Opportunities to participate in enrollment events and activities such as open houses, information sessions for prospective students, area programs and receptions, discipline-specific presentations at high schools, courses offered to students concurrently enrolled in high school, articulation meetings with community college department heads and deans, phone-a-thons, scholarship interviews, research projects, intervention efforts with at-risk students, the teaching of freshman seminar courses, academic and enrollment policy development, or the enrollment planning process.

Getting to the Table

One of the most frustrating quandaries faced by enrollment managers—particularly those who are not high on the organizational food chain—is possessing knowledge and expertise that is underutilized by the institution. Often, enrollment managers are not invited to participate when decisions are made that could be informed by enrollment management intelligence. Being at "the table" is important for another reason, as well: managing expectations. Enrollment targets that appear mysteriously, as if from thin air, often end in a no-win scenario for the enrollment staff and, ultimately, for the institution. Such scenarios result in a decline in staff morale, the erosion of confidence in the enrollment management enterprise, a focus on crisis management rather than strategic thinking, and gaps between revenue projections and revenue production.

So how does one "get to the table"? The answer is simple: Don't wait to be invited. Look for opportunities to provide data and other kinds of intelligence to key decision makers. Offer to give presentations on matters of institutional importance. Know what the priorities of the institution are and align your efforts with them. Take the initiative to submit data-based proposals and white papers. Volunteer to join committees and task forces of institutional significance. Demonstrate the value of your knowledge to the organization in visible ways. Bottom line, make it difficult for institutional leaders to ignore your potential to contribute.

As important as the aforementioned strategies are, the most critical is to identify obstacles that are keeping you from the table. Then, look for ways to overcome them. Barriers may include a hierarchical organizational structure, a closed leadership style, personality issues such as insecurity, a decision-making framework that does not include data analysis or the soliciting of feedback, a locus of control issue, or even incompetence. In the context of the obstacles at your institution, be creative and relentless in your efforts to secure a "place at the table."

Selling the Plan

The groundwork for selling your enrollment management plan is in place if you have effectively created a sense of urgency and fostered an understanding of enrollment issues. It is advantageous to be considered a valued colleague. Even with the groundwork laid, you still must demonstrate that the plan addresses issues that are high priorities for the institution. Furthermore, any competent administrator will want to know what the return on investment is expected to be. Data to support estimated returns add credibility. Administrators also are often influenced by comparisons with competitors and peer institutions, as well as by knowing that "movers and shakers" on campus were involved in the planning process and support the effort.

Presentation and packaging of the plan are crucial to retaining the attention of the audience and communicating key ideas effectively. If possible, deliver the plan in person. This allows for verbal presentation of the major components of the plan, as well as an opportunity for dialogue. Anticipate possible objections to the plan (e.g., it costs too much, how do we know it will work, who has been involved in the planning process) and prepare appropriate responses. Provide an executive summary that includes planning parameters, enrollment goals, an overview of enrollment challenges and opportunities, highlights of the primary strategies linked to challenges and opportunities, effectiveness measures for each strategy, and a reasonable budget estimate for each strategy. Include a summary budget sheet as an attachment. Use either the executive summary or a complementary PowerPoint presentation to guide the audience through the content.

Provide a copy of the complete plan, as well. Ensure that the document, in its entirety, is "reader friendly" by including a table of contents with page number references and labeled tabs to separate major sections. Another option is to place the document on a password-protected Intranet site.

Include a site map and an abstract for each section of the plan with links to the full text.

Selling the plan is analogous to fund raising. First, identify the giving potential of the prospects (senior management) and then learn as much about them as you possibly can. What are their interests, their possible reasons for refusing a request, their connections with your cause, and their past giving history? Next, cultivate a relationship with the key decision maker(s). As the relationship evolves, raise their awareness of your cause. Perhaps find ways to engage them in enrollment-related activities, including the planning process. This will enhance their understanding of and investment in the enrollment management plan. Again, once this groundwork has been laid, you will be ready to "make the pitch." Presentation of the plan should be followed immediately by "the ask."

Anticipate a period of silence following "the ask." Awkward as it may be, do not break it. Give senior management a moment to process your request before responding. Be prepared to answer questions such as "What will happen if we don't fund this request?" or "What would you not do if only 70 percent were funded?" Work hard to sell Plan A, but have a Plan B in reserve just in case.

Finally, do not misinterpret initial resistance to your request as lack of support for the plan. "No" today does not necessarily mean "no" tomorrow. Persist, and, if necessary, be patient.

Being a Good Steward

Resources entrusted to you should be managed carefully. Standard operating procedure should include monthly review of departmental budgets and a quarterly budget analysis consisting of the following:

- Base budget
- Amended budget
- To-date expenditures
- To-date encumbrances
- Planned expenditures
- Funds available for reallocation
- Anticipated deficits

Periodically throughout the budget cycle, the enrollment management leadership team should evaluate divisional needs and prioritize the reallocation of available dollars accordingly. Budgeted operating funds should be traceable back to strategies within the enrollment management plan. Painstaking care should be taken to ensure that funds are used for the purposes for which they were originally intended—or, alternatively, that a strong justification is documented to explain the flexing of dollars toward another purpose.

Asking for new resources or additional personnel typically is not the place to start. Rather, begin by knowing what works and what does not. Reallocate funds from less effective strategies in order to enhance or expand more effective strategies or fund new initiatives. Enrollment managers use three levels of measurement to determine effectiveness:

① Key performance indicators (KPIS): measurement of desired outcomes, typically affected by multiple strategies or by an overarching strategic direction (e.g., headcount enrollment, SAT or ACT average, student diversity, retention rates, graduation rates, student satisfaction, institutional image).

② Return on investment (ROI): measurement of return, usually financial, on an investment of money and/or time. A common example of a ROI measurement is a cost/benefit analysis. For illustration purposes, assume an institution invested $100,000 in an early intervention retention strategy. At the conclusion of the first implementation cycle, 50 additional students were retained. Given that the annual revenue for each additional student was $10,000, the total ROI was $500,000, or five to one.

③ Effectiveness measures: measurements designed to assess the effectiveness of a specific strategy or activity (e.g., a focus group of prospective students to evaluate the viewbook, or a yield analysis to determine how many prospective students of those called by a telecounselor actually enrolled).

Measuring effectiveness is time consuming and rarely exact. Nevertheless, failure to evaluate everything we do results in poor decision making and the squandering of precious resources. Having a SEM plan without clearly defined metrics is analogous to having a roadmap without identifying a final destination. By measuring each aspect of the journey, the savvy enrollment management team can change course to improve the likelihood of reaching the desired result.

Once the plan has been fully implemented and the enrollment results are in, be sure to share the results firsthand with those who contributed to the cause. Demonstrate clearly the return on investment. For example, assume they invested $1 million in your plan, and the return the first year alone was $9 million. These are smart people; they will appreciate this kind of investment/return ratio. They also may value non-economic returns such as improved institutional image, increased student diversity, or a better student academic profile.

Help contributors feel they facilitated the plan's success. Whenever possible, give them credit for enrollment outcomes. Stroke their egos. Why? They made it possible to implement the plan, and you want them to be supportive of your next "ask." Always look for opportunities to set up the next "ask."

Building Infrastructure

Along with funding to support an enrollment management plan, additional infrastructure may be required. Infrastructure needs might include additional staffing, new or remodeled space, technical support, hardware, software, or staff development. These items should not be an afterthought; they are central to successful implementation of the plan.

Failure to build adequate infrastructure in parallel with strategy development leads to a multitude of undesirable outcomes. For example, inadequate infrastructure can result in the diminution of quality. When presented with the choice of implementing either multiple strategies in a mediocre fashion or one or two strategies at the highest level of quality, always take the high road. Another potential outcome is that a lack of infrastructure will impede progress, thereby stalling momentum. False starts and "stops and starts" can derail an implementation effort before the enrollment manager can respond. While mid-course adjustments are common practice, it is almost impossible to overcome an infrastructure deficit rapidly enough to avoid negative consequences. So plan ahead.

Estimating infrastructure needs is not an exact science, but the laws of scalability apply. In other words, if you have 20 staff members and 2,000 square feet of office space now and you expect that as a result of new initiatives and anticipated enrollment increases workload will increase by 20 percent, you probably will need four additional staff members and 400 additional square feet of office space. Clearly, you also should consider how workload might be decreased through technology advances, the automation of current manual functions, the streamlining of processes, outsourcing, and the elimination or scaling down of existing initiatives.

Infrastructure planning should not be limited to quantitative values or issues of volume. Plan strategically for the quality and kind of space that will be needed to serve students in the future (e.g., one-stop shop, walkup cyber-service areas) and the types of technology that will facilitate the work we do (document imaging, wireless office environments, PDAS [personal digital assistants], videoconferencing via the Internet). The following chapter presents thought-provoking ideas about the kind of staffing infrastructure enrollment management operations may require in the future. Think about the implications for your staffing patterns related to the trends described.

Planning for infrastructure changes five and ten years ahead is never easy. But it is necessary. Engage your staff in this planning exercise at least every three to five years.

Conclusion

Adequate resources and infrastructure are the backbone of any SEM enterprise. Leverage data, relationships, and even your own political prowess—whatever it takes to build a solid backbone. With the funding and infrastructure in place, you can focus energies on executing the plan. After all, the quality of execution largely dictates the results. If your college or university organizes effectively around the SEM plan, commits to support SEM initiatives, and executes the plan well, the results will take care of themselves.

10

Tomorrow's SEM Organization:

New Perspectives and Priorities for a Changing Workforce

David H. Kalsbeek

Introduction

Across the diverse spectrum of American colleges and universities, strategic enrollment management (SEM) is defined and implemented today with great variability in models, approaches, structures, and strategies. While commonalities have emerged as the SEM profession has evolved and matured (Huddleston, 2001; Henderson, 2001), the development and definition of the SEM process is perhaps more idiosyncratic to the institutional context than are other areas of professional or administrative activity in higher education administration, such as student affairs or fund raising. Yet one inescapable common denominator is that SEM requires careful attention to the development of the organization's human resources. Development of the SEM workforce is one key to success in the face of the increasing challenges, complexities, and competition in higher education today. The future of the SEM workforce is worthy of thoughtful consideration and planning.

Such planning occurs in the context of tumultuous change in the global workforce—change that not only is shaping the future of American higher education but that also may be rendering traditional models of American higher education obsolete (Dolence and Norris, 1995). Some of the challenges are the increasing wage disparity between those with and those without a postsecondary education, demand for postsecondary education worldwide that far exceeds capacity, an economy where the greatest job growth is in fields requiring a college education and beyond, and the workforce implications of a knowledge-driven society and information economy.

Surely, strategic enrollment planning requires such future-oriented thinking. Yet while enrollment managers consider how these workforce issues will affect their institutions' enrollment future, they must simultaneously plan for how these very same trends will affect tomorrow's enrollment management workforce—the shape and staffing of the SEM organization of tomorrow. The purpose of this chapter is to explore some perspectives for understanding the workforce that drives tomorrow's SEM plan. This necessarily begins with understanding the nature of tomorrow's organizations and extends into some provocative implications for SEM as evidenced by the lessons now being learned in other industry sectors.

Understanding Today's Organization

Enrollment management is about effecting change in complex organizations. Doing so strategically, systemically, and effectively requires a considerable breadth and depth of understanding of organizations, an appreciation of why and how they work the way they do. Fortunately, a great body of both theoretical and practical literature exists that explores the many different perspectives on organizations and organizational development (see Morgan, 1986).

One thing becomes apparent from any review of that literature: "Our [primary conceptual] models of organizations and the way we talk about them has hardly changed for a century" (Handy, 1996). As countless organizational theorists have pointed out, for some time now the dominant, prevailing, most commonly held images of organizations have been as "pieces of engineering, flawed pieces, maybe, but capable of perfectibility, of precision, of full efficiency" (1996). Because organizations have their evolutionary roots in the industrial age, we usually have in mind, when we talk and think about organizations, something that by definition has some determinate order; some clear structure; specific divisions of labor across the horizontal axis and a clear hierarchy or chain of command up the vertical axis of our omnipresent organizational charts.

And because we speak of organizations as if they were machines, we tend to expect them to operate as such: in a routinized, reliable, and predictable way. The job of managing our organizations therefore becomes, quite naturally, driving that machine. Our management approach amounts to a process of planning, organization, command, coordination, and control. We set goals and objectives; organize rationally, efficiently, clearly; specify every detail so everyone will be sure of what job he performs; we engineer the pieces to be finely tuned, tightly meshed cogs in the organizational wheel, as reflected in the tremendously precise job descriptions and clear performance criteria which we as managers so often demand.

But listen carefully to the language being used today to describe organizations and our roles in them: It is very different from this celebration of designs and structures, tools and techniques. Read *Fast Company*, a magazine about "today's organizations" for "today's managers." The talk there is of alliances and teams, empowerment and initiatives, learning and partnerships. Today's organizations are "dropping the title of manager and replacing it with terms such as team leader, project coordinator, lead partner, facilitator..." (Handy, 1996). It seems we are beginning to recognize that organizations are not populated by "human resources to be deployed" (a mechanistic phraseology that replaced the previous industrial notion of labor) but rather "communities of individuals" coming together to achieve some mutually beneficial goals and purposes.

What has changed? It has been suggested that this change in how we talk about our organizations is a result of other changes—specifically, in the revolution in the means of production. Bridges (1996) reminds us of Karl Marx's observation that "the manner in which a society gets its work done shapes most of the other things the society believes and does" (p. 12). Marx's insight was that we look first and foremost to the way we work—i.e., the means of production—for insight into the way we think about our organizations and our roles in them. To understand what our SEM organizations are today and the responsibilities we as SEM leaders have for developing them and the people who make them up, we have to look carefully at how the nature of work is changing.

Bridges (1996) suggests three trends that characterize the changes in how our work is done today—three new realities that together are shaping the kind of organizations we inhabit, the nature of our workforce, and, consequently, the kind of leadership we require now and for the future.

TREND #1: THE PACE OF CHANGE AND THE "DE-JOBBING" OF THE ORGANIZATION

We work in organizations and industries that change quickly and often. The pace of change and the impact of that accelerating pace are something we all experience, encounter, endure, and occasionally embrace. In our technologically high-speed and connected economy, the pace of change creates a constant blur (Davis & Meyer, 1998) that we try to understand, respond to, even anticipate. But we seldom think through the implications of what Peter Drucker pointed out some time ago—namely, "that every organization has to build the management of change into its very structure" (1992). Too many organizations are trying to become more flexible and responsive to change without first recognizing how much inflexibility and unresponsiveness is built into their very structures and systems. We try to teach personnel to be more responsive, agile, entrepreneurial, adept at change management even as we fail to recognize that our recalcitrant and "concretized" organizations lack agility and adeptness at their structural levels. "Who Moved the Cheese?" (Johnson, 1998) has become a best-selling text for helping people in an organization understand how they respond to change; unfortunately, managers seeking such a shallow, quick fix fail to realize that the real resistance to change is not in their personnel but in the molecular, genetic fabric of their organizations and their organizational systems. It's not the mice, it's the maze that resists change.

Bridges (1996) suggests that it is the very rigidity of our staffing structures, the very nature of jobs themselves, that is at the root of the challenges we face in dealing with change. Jobs are not nearly as flexible and adaptable as the persons who occupy them; more often than not, the job itself is the problem rather than the solution. An executive once observed, "I just can't move the boxes around the org chart fast enough to keep up with our new strategies, challenges, and staffing needs" (paraphrased, 1996). Most SEM leaders face that very challenge daily.

A workforce defined through jobs indeed makes it hard for an organization to respond effectively to change. Though the challenges and opportunities we face may change quickly, people keep doing their jobs rather than shifting their attention to what most needs to be done. We have designed entire human resources systems to reinforce that process: people are hired to do a job, evaluated and promoted on the basis of how they do their job, paid according to some classification schemes for that job, and it is the job of the supervisor to see that they do their job. But as Bridges (1996) notes, "In a rapidly changing environment, a company can go bankrupt while all its employees are doing their jobs perfectly."

The challenge to the SEM leader is this: Planning for the future SEM workforce must begin with increasing the capacity of the organization to respond to rapid change and doing so through a more fluid and flexible staffing structure than typically exists today. Naturally, this runs counter to what most managers have learned over the years as HR offices have instituted policies and procedures to create consistency, equity, clarity, and hierarchy in tightly boundaried staff positions. Again, read *Fast Company* and it is clear that organizations that are building change into their very structures—into their genetic, molecular natures—are engaged in making jobs more porous and malleable, even to the point of "de-jobbing" (Bridges, 1996). Jobs—a "more-or-less set task you do every day"—will be extinct and will be replaced by projects (Stewart, 1997, p. 202); project management will replace job supervision as the quintessential function of the SEM manager in tomorrow's organization. Boston College's Delta Project, an organizational transformation requiring the "broadbanding" of job classifications, is an excellent example of preparing an enrollment management organization to better manage change by building greater capacity for responsiveness into the way staff positions are structured.

TREND #2: KNOWLEDGE WORK AND THE PROFESSIONALIZATION OF TODAY'S ORGANIZATION

The second trend in how we do our work today is that whatever business we are in, most of us spend much more time manipulating information about things than manipulating the things themselves. While notions of a "knowledge economy" and a "knowledge company" are a bit abstract, knowledge work is anything but an abstraction (Stewart, 1997, p. 41). Today's SEM leaders realize that knowledge work is what SEM is; information is the most important raw material driving SEM; and knowledge management is what they do as SEM leaders. We all have seen the statistics on the ever-growing percentage of people in today's economy who are "knowledge workers." But the point is not just that more people are doing knowledge work but rather that the knowledge *content* of all work is increasing. All across today's organizations, whether the work is blue collar, clerical, or professional, the extent of work that is mental versus manual is increasing dramatically, forcing managers to attract, develop, and retain a more educated staff to perform increasingly complex knowledge-intensive tasks (Stewart, 1997).

As noted at the outset of the chapter, the irony for enrollment managers is inescapable: On the one hand, the long-term future for enrollment in higher education is determined directly by changes in our global society and information economy that require that the future workforce be more educated; on the other hand, the very emergence of knowledge work typically is given little attention as we discuss the future of how we manage higher education enrollment and develop the staffing model for tomorrow's SEM organization. Yet all across enrollment management organizations, from front desk receptionists to application processors, from transcript reviewers to career counselors, from academic advisors to advertising managers to market researchers, we find that the SEM workforce is doing work that is increasingly knowledge intensive and that our organizations are changing accordingly, presenting an entirely new range of management and leadership challenges.

When work was primarily physical, or manual, or in human services, it was easy for the manager to divide that work into separate jobs, each with its different job description. Those jobs in turn were clustered into separate departments, each with its different function. Knowledge work is harder to divide that way; it often is accomplished necessarily in cross-functional teams, further eroding the outlines of the traditional job (Bridges, 1996). Knowledge work further "de-jobs" the organization. Instead of narrowly defined jobs carefully arrayed and deployed through a mechanistic organizational design, we have in our knowledge-based organizations an explosion in the professionalization of work. Quinn, Anderson & Finkelstein (1998) discuss at length the nature of professional work in a knowledge-based economy.

The professionalization of the workforce in the knowledge-based organization is one of the daunting challenges faced in the management of human resources for SEM. As our workforce becomes more professionalized and as those professions spawn specialties that create work that is increasingly esoteric, our

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workforce and our human expertise become more balkanized. Organizations begin to resemble confederacies of professional communities rather than sleek, structured pyramids of command and control. "Because professionals have specialized knowledge and have been trained as an elite…they generally hesitate to subordinate themselves to others or to support organizational goals not completely congruous with their special viewpoint. That is why most professional firms operate as partnerships and not as hierarchies and why it is difficult for them to adopt a unified strategy" (Quinn, Anderson & Finkelstein, 1998, p.184). Organizations thus become Towers of Babel where professional communities with a vernacular and lexicon all their own (what Quinn, Anderson & Finkelstein call "discipline-based cocoons") make interdisciplinary conversations and collaboration extraordinarily difficult. The emergence of teams as the primary way work gets done in the knowledge company is perhaps the most visible attempt to address this challenge.

If knowledge workers' primary allegiance and affiliation is with their professional community, and not necessarily their employer, the result will be an increasingly transitory workforce of independent talent. "Me, Inc." describes this emerging character of professional work life where a person's career is more like a series of independent professional engagements for various clients than a long-term advance up a ladder of increasing responsibilities in a single organization's hierarchy. A career is now "a series of gigs, not a series of steps"; consequently, the professional vitae will change, since rather than reflecting someone who "has had few changes of company but many changes of title, a resume will show fewer titles but many more employers" (Stewart, 1997, p. 206). Our knowledge-based workforce is characterized by the "free agency" (Davis & Meyer, 1998) of highly mobile professionals. The mantra of the new professional seems to be "Rather than being managed by the organization you join, you manage its contribution to your career" (Davis and Meyer, 1998, p. 155).

All SEM leaders now face this irony of life in the Information Age. As Stewart (1997) points out, "A paradox lies at the heart of the Information Age organization: at the same time that employers have weakened the ties of job security and loyalty, they more than ever depend on human capital…. Compounding the problem is the fact that the most valuable knowledge workers are also best able to leave their employers, taking their talent and their work with them" (p. 101). Drucker (1993) also notes that because knowledge workers by definition own the knowledge—the very "means of production" in knowledge-based organizations—they are highly independent and mobile, more like volunteers than employees (p. 12).

The challenge this second trend presents to the SEM leader planning the future workforce is twofold: First, in a free agent workforce, how do you increase the investment and ownership of your most valuable independent professionals in the SEM initiative? In industry—particularly the intensively knowledge-based, high-tech sector—this challenge typically is met through employee stock ownership. Stewart (1997) offers an outstanding illustration of how MicroSoft went public, not to raise capital but rather to monetize the investment the workforce had in the company; it was a strategy designed to elevate the role of the knowledge worker from employee to manager to owner in an effort to retain the knowledge base that represented the firm's most valuable asset. While such options generally may not be available to the SEM leader, managing the churn in today's professional workforce is nevertheless a challenge of the first order. The winners in the "war for talent" (Chambers et al., 1998) now being waged will have found ways to "make talent management a burning priority" (p. 48).

Second, how should one organize, manage, and engage communities of professionals in the kind of systems change SEM requires? This challenge is addressed largely through the use of cross-functional, interdisciplinary, self-directed teams. The rapidly expanding literature on using teams to leverage the strengths of the professionalized organization offers many ideas for consideration by the SEM leader.

TREND #3: UNBUNDLING THE ORGANIZATION

The pace of change and the increasingly specialized professional workforce introduce the third characteristic way in which how we work is changing. A whole range of activities that used to be integrated within a single organization now are more and more frequently "unbundled" and parceled out among different organizations with more specialized focuses. Increasingly, the work of today's organizations is done through partnerships between and among multiple organizations, each delivering a highly specialized function; less and less often does a single company oversee all production functions.

The unbundling that is so characteristic of today's organization is not new to higher education. For some time, we have realized that it is not economical to employ all the staff needed to do all the work that needs to be done. Contracting for the management of food services and campus bookstores, for example, has long been standard practice. Likewise, we hire professional talent for no more time than necessary when we select firms to develop our recruitment viewbooks, do market research, or provide legal counsel. SEM organizations today are outsourcing a widening array of tasks and functions to partners that specialize in a type of work, to include financial aid and enrollment verification, transcript review, hosting Web sites, inquiry management, fundraising, information systems support, and so on.

Tomorrow's SEM organizations will be unbundled, with significant operations performed more effectively and efficiently by "outsiders" than they could have been by ourselves. But outsourcing is only one way in which today's organizations are shifting from full and independent ownership and managerial control to interdependent partnerships. Today's organizations more aggressively seek out alliances, co-ventures, and partnerships with other firms—even competitors. The notion of co-opetition (Brandenburger and Nalebuff, 1996)—the blending of cooperation and competition—is increasingly prevalent as businesses partner with businesses that may be competitors at one level but that are strategic partners at another. In higher education, this is evident already in purchasing alliances, joint sponsorship of new Internet ventures (e.g., U-Next, Western Governor's University), and student services (e.g., shared housing cooperatives).

So the way our work is changing is that the organization "unbundles" its activities, relying on its full-time workforce to meet only part of its needs and outsourcing or subcontracting the rest—particularly those functions that provide little or no value added in the knowledge business (a point we will re-visit). Similarly, organizations "outsource" work when they simply turn work over to the customers themselves. As banks do with ATMs, as gas stations have long done with self-service pumps, so higher education redistributes some work to the customer. Through Web registration, on-line applications, virtual career fairs, automated degree audit, and even on-line instruction, students are managing more of their own transactions, enabling faculty and staff to focus on the more knowledge-intensive process of helping students through transitions.

Planning for the future of the SEM workforce requires addressing the challenge presented by this third trend: Colleges and universities will continue to expand the scope of SEM, the range of functions, processes, and activities that must be more tightly integrated (i.e., bundled) in order to do enrollment management strategically (e.g., Huddleston, 2001). In other words, the organizational umbrella of SEM will continue to grow as universities seek a more seamless, tighter coupling of previously disintegrated functions and processes. Simultaneously, however, the organizational structure itself will be an increasingly unbundled network of partnerships among professional specialists, contracts with outsourced providers, coventures or alliances even with competitors. Managing tomorrow's SEM workforce will require leadership less like a line manager supervising subordinates and much more like a general contractor coordinating an ever-growing number of subcontracted specialists in performing their professional roles in a tightly coupled, intricately orchestrated, highly complex construction project.

Leading the Future Workforce

So Bridges (1996) and many others prompt us to ask: What does it take to lead an organization comprising a revolving door of free agent professionals, some of whom are employed by your organization in traditional sense and some of whom are not? What does it take to lead an organization where work is not organized into finely scripted job descriptions, that is not arranged like a human pyramid at the circus but consists instead of loosely affiliated communities of highly autonomous professionals? What does it take to develop the workforce dimension of today's SEM organization when its value to the organization lies less in what the staff do (the traditional labor model) than in what they know?

First, it requires a willingness to embrace these emerging challenges and explore new opportunities and alternatives not readily available or even apparent in our current reality. Because the rules of the game are changing, methods that may have worked in the past are rendered obsolete. In doing SEM, "the problems we face today cannot be resolved at the same level of thinking that created them in the first place" (Kalsbeek, 1999). Second, some responses to these new challenges and answers to these questions can be distilled from emerging frameworks for understanding the work of organizations in the changing economy. The implications and applications of what is being learned in other sectors of the economy are very real for higher education, for the SEM organization and the SEM leader. The following discussion addresses three relevant arenas: intellectual capital; learning organizations; and knowledge management.

Intellectual Capital

As much as we may talk about it, what does it really mean to be part of a knowledge economy, or the Information Age? In common parlance, these phrases often refer to the emergence of new high-tech industries, to the pervasive impact of information technology on today's economy, to the fundamental changes in our lives resulting from "being digital" (Negroponte, 1995). "You would be hard-pressed to find a single industry, a single company, a single organization of any kind that has not become more information intensive" (Stewart, 1997, p.18). SEM clearly is not at all immune to the pervasive impact of information technology (Black, 2001), and any strategic staffing plans now are focused increasingly on the need for a workforce competent in such technology.

But the core premise—and promise—of today's information economy is not that information technology is transforming business, but that knowledge constitutes the primary capital resource or asset which gives competitive advantage and creates wealth. The knowledge-driven economy is one in which ideas and knowledge replace physical assets and labor as the source of value or wealth in an organization. In fact, knowledge is today's organization's only resource with unlimited potential for growth, the only organizational resource whose asset value appreciates the more it is used, shared, and distributed. Knowledge is the only resource that can provide a sustainable competitive advantage since it can generate and regenerate continuing advantage for the organization. Therefore, "the capacity to manage human intellect—and to convert it into useful products and services—is fast becoming the critical executive skill of the age" (Quinn, Anderson & Finkelstein, 1998). Certainly that is the challenge in planning tomorrow's SEM workforce.

Intellectual capital can be defined as the sum of everything everyone knows that gives the organization a competitive edge (Stewart, p. ix). Because it is difficult to separate the value of the knowledge from the value of the knower, intellectual capital is at the core of our human resource planning for tomorrow's SEM workforce. It is all too common to talk in rather sentimental terms about staff being "our most valuable asset"; it is not nearly as common for leaders to take a disciplined look at staff as the source of their organization's intellectual capital—that most strategic asset that creates competitive advantage in a knowledge-intensive business. Stewart's (1997) is a cogent, provocative, and highly recommended exploration of "intellectual capital" in today's business economy; it has powerful implications for an approach to SEM that recognizes that success tomorrow will be a result of what is *known* more than what is *done*.

With intellectual capital as a core value in the workforce, we are compelled to more fully appreciate how knowledge can be a means by which a business creates wealth. In the world of SEM, illustrations of the real valuation and competitive advantage of knowledge are obvious and numerous.

For example, at DePaul University in 1997, a freshman class of 1,200 students was the five-year average. Asked at that time what would be required to achieve a goal of 2,000 freshmen over six years, a staff response driven by the typical enrollment management tactical planning process would have been a laundry list of additional resources and activities: more counselors, expanded direct mail, more travel, and the like. Instead, investment in research, predictive modeling, staff development, program evaluation, and process redesign (i.e., a strategic investment in knowledge) resulted in the desired 60 percent increase in just three years, with no increase in human resources, no increase in the discount rate, and with an actual reduction in direct mail and travel expenses. Clearly, this represents the direct financial return on the investment in knowledge, a real and demonstrable valuation of intellectual capital. Forty percent of the total freshman enrollment (and therefore, 40 percent of the tuition revenue) was the result of knowledge, not labor—of developing and deploying intellectual capital. The value to the university was gleaned not from what staff did, but from what staff knew. As Ben Franklin is oft quoted, "An investment in knowledge pays the best interest" (Kalsbeek, 2000).

This is an example of the impact and real value of what some refer to as *leveraging professional intellect*.

> *Professional intellect creates most of the value in the new economy. Its benefits are immediately visible in the large service industries, such as software, health care, financial services, communications, and consulting. But in manufacturing industries, as well, professionals generate the preponderance of value—through*

activities like research and development, process design, product design, marketing, or systems management (Quinn, Anderson & Finkelstein, 1998, p. 182).

There is no shortage of examples of how professional intellect or intellectual capital represents a critical asset and value for the SEM organization. Intellectual capital or professional intellect is what the SEM leader must identify, nurture, and capitalize upon; it therefore is the primary focus in any planning for the future workforce. (See Figure 10.1.)

Figure 10.1: The Four Basic Dimensions of *Professional Intellect*

Assessment Tools	**Research Questions**
Cognitive knowledge (the know-what)	The core knowledge base that defines the professional discipline, the result of the professional education, training, and certification.The financial aid professional, the marketing professional, the systems analyst all bring professional content knowledge to the SEM organization, a critical component of the professional intellect that builds intellectual capital for the organization.
Advanced skills (the know-how)	How professionals translate and apply their specific disciplinary knowledge and experience to a wide range of challenges faced by the organization.
Systems understanding (the know-why)	What moves professional effort beyond executing tasks to solving the complex, systemic problems that Senge (1990) identifies as our most pressing challenges; this part of professional intellect is often reflected in finely tuned professional intuition.
Self-motivated creativity (the care-why)	The will that drives professionals to renew their other bases of intellectual value, embrace change, and adapt to new challenges and innovations.

Workforce development requires the SEM leader to ensure that the organization capitalizes on what the staff knows. The SEM leader must leverage these broader dimensions of professional intellect, striving tirelessly both to attract and retain those who possess this asset as well as creatively managing the attrition of those who do not. Survey the staff roles and contributions across the entire spectrum of any SEM enterprise, and various staff positions and personnel doubtless will represent a wide range of value to the organization's intellectual capital. Stewart (1997) presents an intriguing construct for understanding, appreciating, and planning workforce roles from a knowledge capital point of view, using a fourfold taxonomy based upon the replaceability of staff and the value added in their role—particularly the value added for a customer.

⑪ The lower left quadrant represents "semi-skilled" labor; in the EM organization, examples may include mailroom staff, data entry operators, and the like. Every EM operation needs such work to be done (and done well), but

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success does not depend upon these staff as individuals, and they are readily replaceable. Their value lies primarily in what they do rather than in what they know, and their work does not in and of itself present a high value to the customer.

Figure 10.2

Value to the Customer

Difficulty to Replace	Low	High
High	2	4
Low	1	3

② The upper left quadrant represents those skilled staff who have mastered a complex and important role and therefore are difficult to replace, but whose work may present or create little real direct value for the customer. Advertising staff who develop and manage ad placements and marketing campaigns for academic programs contribute specialized and valued professional skills, but their activity in and of itself neither provides direct value for the customer nor translates to intellectual capital for the enterprise.

③ The lower right quadrant represents staff who perform tasks highly valued by customers but who are easy to replace. For example, credential reviewers perform a critical service for transfer students, but their work is largely by rote as they apply rules to data; thus, they are replaceable.

④ The upper right quadrant includes those extraordinarily valuable staff who exercise irreplaceable roles and likewise are irreplaceable as employees. They may be innovative financial aid managers, employer relations coordinators, the community college liaison, etc. Their value lies directly in their personal knowledge of things critical to the organizational mission. The strategic goal is to move more staff positions to the upper right, which is how the

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SEM leader creates value and competitive advantage from the intellectual capital represented in the organization's human resources. "When the CEO says, "People are our most important asset," he is speaking of those in the upper-right quadrant—people who know how to serve customers in ways that give the company an edge" (Stewart, 1997, p. 93).

If SEM is a knowledge business, then human capital in the SEM workforce is in the upper right quadrant; all the other quadrants represent labor costs. "Smart organizations...will spend and invest as little as possible in work that customers do not value and whose workers' skills are easy to replace" (p. 91). Planning for the future SEM organization from an intellectual capital perspective therefore requires deliberate steps to move the workforce to the upper right of the grid; Stewart offers several recommendations for doing so.

First, those activities and functions in the lower left quadrant should be automated, and staff positions thereby eliminated. For example, the data entry positions so critical in yesterday's admissions and registrar offices are being eliminated as students engage in more self-managed, Web-enabled transactions. Workforce planning in a knowledge-driven SEM organization requires automation and the consequent elimination of related staff roles; this must be done not to reduce cost but rather to create a workforce that represents greater value. In an intellectual capital framework, the SEM leader should accelerate that process.

In contrast, roles in the lower right quadrant should not be eliminated, because they provide high value to the customer; rather, they should be outsourced to partners who can ensure high-quality service and value without adding directly to the SEM organization the costs of staffing and directly managing these roles. Examples include the processing of financial aid credentials, international transcript reviews, inquiry fulfillment, or career placement services for alumni. These services are highly valued by the customer; the talent required to provide the services is replaceable; and the most efficient, effective way to manage this dimension of the workforce may be through an outsourced, "unbundled" partnership.

Staff positions in the upper left quadrant can be developed so they offer greater value to the intellectual capital of the organization—a process Stewart calls "informating." For example, the goal is to ensure that the transcript review specialist whose value lies in her knowledge of community college articulation brings her knowledge to bear on academic program planning with transfer students (or academic program development with faculty), thereby using her accumulated knowledge—her human capital—and creating greater "value added." The challenge in "informating" that role is to capitalize on what the specialist *knows*, not on what she *does*. Another example is redefining the role of the advertising placement specialist, who coordinates the logistics of the university's print ad campaign, in order to capitalize on her knowledge—for example, by providing routine intelligence to the organization on the advertising trends of key competitors. Both of these are examples of increasing the strategic value of the workforce by capitalizing on professional intellect (moving staff roles into the upper right quadrant).

If intellectual capital is the sum of everything everyone in an organization knows that provides a competitive advantage and enables the organization to be more responsive to change, then increasing the intellectual capital of the organization and leveraging its professional intellect is the primary challenge the SEM leader faces in planning for the future workforce. Two key questions therefore demand the attention of today's SEM leader:

① How to ensure that staff know more of what is useful?
② How to use more of what staff know?

The answers to these questions lie in two emerging arenas of organizational innovation and insight: the *learning organization* and *knowledge management*.

Helping People Know More of What Is Useful: Developing a Learning Organization

Since Senge published *The Fifth Discipline* in 1990, the core principles and premises of the "learning organization" have been recognized as valuable perspectives for defining and developing SEM (Kalsbeek, 1998; Black, 1999). Neither information nor the technology for managing information will be the key to the success of tomorrow's SEM, since in this competitive era access to information and the emergence of new technology continuously level the playing field. Information and technology alone present no sustainable competitive advantage because advances in both areas are quickly shared throughout the industry, thereby constraining any competitive edge. Rather, the "critical strategic advantage for the 21st century will be the relative capability of the members of an organization to learn from that information and to apply those learnings to create a strategic advantage" (Thompson, 1995, p. 94, emphasis added). Learning is the lifeblood of the SEM workforce committed to ensuring strategic advantage.

While there really is no such thing as a "learning organization," it represents nevertheless a compelling vision for the kinds of change that must occur in order to overcome the debilitating dysfunction that characterizes most organizations today (Kofman and Senge, 1995). Many—if not most—SEM organizations and managers are consumed by a problem-solving mentality; their basic metabolism—what provides and consumes their energy—is solving problems and responding to crises. But simply solving problems—even big problems—can never really leverage strategic advances for the organization, since today's solutions inevitably become tomorrow's problems (Kalsbeek, 1998). The real transformational power of learning in today's organizations is unleashed only when we realize that "there are no problems 'out there' to be solved independent of how we think and act in articulating these problems" (Kofman & Senge, 1995).

In the face of constant change, the organizations that succeed will be those that continuously expand their capacity to learn, to identify and challenge existing assumptions and paradigms, to ensure that everyone in the organization can be a source of useful ideas and is capable of making the organization more "change agile" than "change fragile" (Rolls, 1995). "Organizations that have acquired the learning habit are endlessly questioning the status quo, are forever seeking new methods or new products, forever testing and then reflecting…" (Handy, 1995, p. 49). Like intellectual capital, all this seems fairly abstract at the outset. But as Thompson reminds us, "An organization itself doesn't learn—people learn.…In order to understand how organizations learn, we must understand how people learn and share knowledge, the processes that support attitudes and behaviors essential to learning, and the psychological issues that underlie resistance to learning" (1995, p. 86). Garvin (1993) extends this a bit further, insisting that a learning organization is "skilled at creating, acquiring, and transferring knowledge and at modifying its behavior to reflect new knowledge and insights" (1995, p. 94). In short, organizational learning is defined according to measurable improvements that stem directly from new ideas generated through the learning process.

The irony again is striking: In an industry that has human learning as its core business, our work in SEM too seldom is guided by what we know about learning and how to improve the way in which our workforce learns. Yet this is the critical challenge in developing tomorrow's SEM workforce: ensuring that the entire workforce is learning and, therefore, developing new capabilities, creating new strategic advantage, building intellectual capital.

The integration of work and learning is at the core of realizing the vision for a learning organization. A learning organization affirms this simple tenet: We work when we learn, and we learn when we work (Morris, 1995, p. 328). Too often, the learning process is separated from core business processes; for example, most SEM organizations would describe their professional development plan by presenting a list of professional conferences to attend, journals to subscribe to and circulate, resource libraries to collect and build, skill training seminars to sponsor. But the kind of learning that matters occurs as we weave work and learning together; learning should not be seen as something separate in either time or place from the core work or responsibilities of the staff. In a learning organization, "workplace becomes classroom, supervisors become coaches, and fellow employees serve as cross-peer tutors at the work site" (Dilworth, 1995). The SEM organization committed to continuous learning has regular staff discussions driven primarily by these four basic questions:

Working: How can we work more efficiently so we can spend more time thinking?
Learning: What have we learned in the last 30 days?
Teaching: What new knowledge did we create and share?
Applying: How did we translate what we learned into increased competitiveness?

Dilworth suggests several strategies that should characterize the organization that is committed to learning; two are described below:

Cross-functional teams and self-directed teams. Teams are at the center of a learning organization because it is only through the small learning group that divergent thinking can effectively lead to solutions that lie outside the bounds of any individual's professional perspective. Senge argues that teams, not individuals, are the fundamental learning units in today's professionally balkanized organizations and that unless teams learn together, organizations

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cannot. Drucker (1993) further asserts the necessity of teams in a knowledge-driven organization: "Because the modern organization consists of knowledge specialists, it has to be an organization of equals, of colleagues and associates. No knowledge ranks higher than another…therefore, the modern organization cannot be an organization of boss and subordinate. It must be organized as a team" (p.13). A wealth of literature is now available on the "team approach" to today's workforce. In Bennis and Beiderman's (1997) *Organizing Genius*, the SEM leader finds a compelling exploration of the power of the collaborative team approach in a knowledge-based enterprise. In the SEM world, this approach is found most frequently in the process of software systems implementation. For example, DePaul University's successful implementation of the PeopleSoft suite of administrative software was directly dependent upon the team approach to that project, the learning outcomes of which have been as apparent and far more consequential for the university than the impact of the software systems themselves.

Job rotation and employee exchange programs are effective ways of broadening staff members' knowledge of complex processes that transcend the function of any given unit. Senge (1990) identifies systems thinking as one of the core characteristics of the learning organization. Because most of the challenges in our SEM organizations are systemic in nature, they require an appreciation of a complex whole in order to effect change. Job rotations and exchanges facilitate staff members' appreciation of interdependencies and interrelationships between and among different functions. At DePaul University, professional positions are created that formally bridge structurally independent yet strategically interrelated functions in order to create a more systemic approach to key enrollment development strategies; formalize the systemic integration (often through job exchange programs); and enhance organizational learning. The position of assistant director for admission and financial aid is funded, filled, and functions in a way that broadens the learning and integrates the efforts of two independent units. An assistant director of the career center works in the alumni office and manages a large corp of alumni volunteers in a career mentoring program which crosses "boundaries" between the career and alumni relations offices. While a growing number of SEM organizations pursue functional and strategic integration by having previously independent units report to a single SEM officer, the functional and strategic integration that matters

In many ways, knowledge management parallels some of the core principles of learning organizations and team learning; increasingly, these two literatures and practices seem inextricably intertwined. Some have suggested that "knowledge management" in corporate America may have taken hold more readily and rapidly than it has in "learning organizations" because it connotes a more concrete, actionable, tangible, manageable **asset** whereas "learning" is an abstract, "slippery," and diffuse **process** which is harder for the management mindset to grasp or hold accountable.

most is embedded in the connectedness of staff roles, responsibilities, and perspectives that cross traditional boundaries.

Using More of What People Know: Knowledge Management

Increasing the return on the value of an organization's intellectual capital and the outcomes of organizational learning is the goal of "knowledge management," a rapidly expanding specialty in organizational development. Stewart reminds us that the intellectual capital of a SEM organization is an asset only when some useful order is forged from the "free-floating brainpower" possessed by staff. It is usable only when it is given coherent form; when it is captured, described, shared, and exploited; and when it can be deployed strategically in ways it could not be if it remained scattered.

The goal of knowledge management is not the mere collection of information but rather the connection of sources of expertise with those who need it; more than the development of usable knowledge, it is the effective dissemination and distribution of knowledge. The goal is to use more of what is currently known in the organization by expanding access to that knowledge and enabling efficient knowledge exchange. Knowledge management, in other words, is how we take the intellectual capital generated through the learning process and make it an organizational asset by structuring, sharing, and applying it for organizational improvement or competitive advantage.

Knowledge management thus comprises both an information technology (IT) and a human resources (HR) dimension. The IT dimension uses today's powerful databases coupled with global Internet access and communications to achieve scalability in providing an entire workforce with real-time access to information. The HR dimension recognizes that identifying and applying usable knowledge is fundamentally a human process since "knowledge is a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers" (Davenport & Prusak, 1998, p. 5). Such a perspective clarifies how knowledge management is necessarily a workforce development effort, not just a technologically enhanced information dissemination strategy.

Stewart (1999) suggests that the single greatest knowledge management tool ever devised is the office water cooler (or perhaps the departmental coffee pot) around which colleagues routinely gather in a knowledge management ritual. This imagery helps frame what a knowledge management system is designed to do. The coffee pot promotes cross-functional and interdisciplinary sharing of information; it facilitates the non-hierarchical flow of information across the organization; it is part of everyone's daily routine; and it allows for serendipitous and unstructured interchange of knowledge. But the office coffee pot has some limitations as a knowledge management strategy: it lacks scalability in large organizations; it has no capacity for memory; it is unpredictable as a source of usable knowledge; and there is no guarantee of the validity of the information shared (as everyone is well aware).

The knowledge management challenge for the SEM leader is to integrate staff development (the HR component that identifies usable content knowledge and promotes learning) and new technologies (the IT component that records, structures, and provides access to the knowledge) in order to create a scalable enterprise-wide "coffee pot"—one that encourages the percolation of usable knowledge and intellectual capital throughout the organization (Kalsbeek, 2001).

Today, "new technologies and management approaches are changing the traditional economics of managing professional intellect" (Quinn, Anderson & Finkelstein, p. 190) The best practices in knowledge management have emerged, quite naturally, in industries for which knowledge is the core business and in which the huge scale of the organization makes the coffee pot inadequate. Large business and technological consulting practices such as Arthur Andersen, KPMG, HP, McKinsey, etc. have extended the boundaries of leveraging professional intellect for organizational gain and corporate value. Expert systems for capturing, coding, integrating, and sharing the knowledge base of professionals are being developed in all major consulting firms and other knowledge-intensive industries. New systems and knowledge databases leverage professional intellect by sharing throughout a worldwide enterprise the solutions, experiences, and insights of professionals across the workforce. Consultants charged with solving a problem in Bangkok have immediate and efficient access to the professional intellect and experience of colleagues in Bahrain who have addressed similar problems. An electronically connected network of professionals reduces the need to reinvent the wheel, increases the efficiency of problem solving, and thereby leverages the intellectual capital of the entire organization.

Naturally, the HR dimension is as critical as the IT dimension. In fact, the challenges of knowledge management go far beyond the cultivation of staff learning and the development of usable knowledge. Knowledge management requires "overcoming professionals' natural reluctance to share their most precious asset, knowledge; because professionals' knowledge is their power base, strong inducements to share are necessary" (Quinn, Anderson & Finkelstein, 1998, p.193). Organizations that have successfully employed knowledge management techniques have developed ways to encourage interaction, collaboration, knowledge sharing, and knowledge use throughout the workforce.

At most universities, corporate relationships are multidimensional and fragmented. Employer or corporate relationships may exist through the career center, the admissions office, corporate giving, faculty consulting, alumni networks, governing boards, and so on. Tremendous potential value and leverage may be gained through the strategic integration of these otherwise distinct areas. At DePaul University, a goal of the enrollment development strategy is to better integrate and leverage university relationships with key corporate partners. University leaders envision a knowledge management solution to this challenge, a readily accessible database of the full range of contacts, relationships, and interactions with selected corporate partners. Such a system would enable the university's leadership to cultivate strategic relationships with the corporate leadership of ABCD, Inc., for example, by building on current knowledge of the extent to which professional staff in the career center are working with recruitment representatives of ABCD, Inc.; development or financial aid staff are using corporate-funded scholarships; alumni employed at ABCD are involved at the university; and ABCD provides tuition assistance for its employees currently enrolled at the university. Developing the technology for such data sharing and knowledge management is a relatively minor hurdle compared to the challenge of getting staff and faculty to share and record this information in their daily work routines. Kidwell, Vander Linde and Johnson (2000) describe other potential applications of knowledge management practices in higher education.

The emergence of a literature on and the growing practice of knowledge management in the consulting industry can be a tremendous asset to higher education—and certainly to the leader envisioning the next iteration of the evolving SEM organization, including how to define the roles and responsibilities of staff in such an organization. Davenport & Prusak (1998) outline how, in an organization committed to making knowledge a sustainable advantage, every job is affected by and should be redefined in terms of knowledge management.

> *The most successful organizations are those in which knowledge management is part of everyone's job.... While [knowledge management] specialists are clearly critical to the success of knowledge management, even more important are the activities and attitudes of those who are paid to do something other than manage knowledge. Planning managers, business analysts, design and manufacturing engineers, marketing professionals, and even secretaries and clerks are the most important managers of knowledge. They all need to create, share, search out, and use knowledge in their daily routines* (Davenport and Prusak, 1998, p. 108).

Conclusion

Envisioning and developing tomorrow's workforce in the SEM organization is a daunting challenge for the SEM leader. The pace of change shortens the shelf life of any innovation and renders usable knowledge obsolete in shorter and shorter time cycles, often making today's competitive advantage tomorrow's liability. The workforce described in this chapter is not on some distant horizon; it is today's workforce—and its impact on and relevance to higher education administration in general and SEM organizations in particular are real and immediate. Planning the future workforce for SEM requires leveraging the intellectual capital of the organization by cultivating a learning process inextricably intertwined with work processes; making the development of talent a strategic priority; and ensuring that knowledge is managed in such a way that organizational expertise and professional intellect are constantly on call.

PART IV

Harnessing the Power of Technology

Although the enrollment management portfolio contains many tools, those fueled by technology are the most powerful. Technology enables enrollment managers to monitor trends, forecast enrollments, predict the likelihood of a particular student's enrollment, track a student's progress through the university and beyond, measure the success of marketing and recruitment strategies, isolate factors that lead to student attrition, communicate with students anytime from anywhere, customize communication for each individual, build on-line communities, and more. Mastery of technology-based "tools of the trade" quickly has become a prerequisite to becoming a chief enrollment officer.

No corner of the enrollment management universe changes more rapidly than this. Enrollment managers are strongly encouraged to attend technology conferences, subscribe to technology publications, interact with institutional IT people, participate in technology-related committees and working groups, and most important, use technology daily. Watch for emerging technologies, and weigh the costs and benefits of being on the "bleeding edge" versus being a late adopter or somewhere in between. Become the campus expert on technology's functional aspects (if not its technical aspects). Know how technology will affect the end user. Anticipate end users' changing needs. Ask tough questions, and promulgate a vision of where administrative computing should take the institution and those it serves.

In Part IV, authors present "how-to" information regarding implementation of a student information system (the cornerstone of information management and service delivery) and effective management of information using technology. Strategies for capitalizing on technology-based opportunities to market, recruit, retain, and serve students more efficiently and effectively are also described. These chapters provide the foundation you need to ask the right questions and imagine the possibilities.

CHAPTERS 11, 12, AND 13 ▷

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11

Implementing a Student Information System

Reta Pikowsky

Implementing a student information system is one of the most difficult tasks that we as enrollment services professionals undertake. With good planning and foresight, successful implementation within a reasonable timeframe is an attainable goal. The increasing emphasis on enrollment management at most institutions almost invariably means that more sophisticated technology is required to deliver services and information and to provide better data for decision support. We live in a competitive world (made no less so by annual rankings such as those published in *Yahoo! Internet Life* magazine). We are subjected to both internal and external pressures to do bigger and better things with technology. The bad news is that there is no end in sight; the good news is that we are getting better at responding.

A Growing Wealth of Experience and Information

Internet search engines provide bounteous information on how different institutions have approached the daunting task of implementing a student information system. Publications by organizations such as EDUCAUSE add to our understanding of the pitfalls to be avoided and the vast riches that colleges and universities can exploit—particularly with the wealth of Web technology we now can access. In July 1998, CAUSE and Educom created a new consolidated organization to "galvanize thought and action at the intersection of higher education and information technology."

The EDUCAUSE Web site[1] is an excellent source of information on publications (books, monographs, periodicals, and electronic publications) related to information technology. The Web site also includes an "information resources library" containing materials on topics ranging from an RFP (request for proposal) for ID card systems to a transfer course evaluation system.

The CUMREC Web site[2] similarly provides insight into the current status of technology in higher education. (The site's conference history section explains that at its founding in 1956, the organization was called the "College and University Machine Records Conference.") Each year, CUMREC holds a meeting hosted by a member institution "to provide a forum for higher education professionals to share their expertise and experience with computerized systems." The conference has become an important forum for the exchange of cutting-edge ideas and information, particularly among technical staff. CUMREC is now affiliated with EDUCAUSE, expanding the reach and effectiveness of each organization.

Getting Buy-in

In real estate, the key to success in selling is said to be "location, location, location." The key to successfully installing a new student information system may well be "communication, communication, communication." This battle cry should be sounded from the moment debate about purchasing a new system begins, and it should continue thereafter.

The process of installing a new student information system is never-ending. Once initial implementation is completed, there will be an endless series of upgrades because, as they say, technology is moving at the speed of light. Change is our constant companion, and in no area is that truer than in technology.

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[1] See http://www.educause.edu

[2] See http://www.cumrec.com

Many institutions have successfully utilized teams and workgroups to analyze problems, recommend courses of action, and ensure adequate communication. A sensible, widely distributed project plan can foster involvement and facilitate agreement as to what should happen and when.

Both technical and non-technical staff should be involved in implementing a student information system. Non-technical staff will be more accepting of a process they feel a part of and that is not simply "handed down" to them by technology managers. The more inclusive the process, the more effective the end result will be. (See, for example, a 1995 paper written by Fritz Hibbler[3] that describes how the University of Idaho involved its staff in a large-scale implementation with a co-existing change in the workplace environment.)

Following are some hints for facilitating buy-in during the implementation process:

- Try to find ways to inject lightheartedness into meetings and training sessions.
- Develop themes designed to unite staff in a common purpose.
- Establish a "team award of excellence." Give each of the members a certificate of excellence, and invite them to a lunch or breakfast with a vice president who can thank them in person for a job well done. Higher-level administrators who recognize high-performing teams or individuals send a strong message that reaffirms the notion that "we are all in this together."

Buy-in from the campus community is critical to successfully initiating the implementation and in fact should be cultivated throughout the process.

The Request for Proposal (RFP)

One of the most important actions you can take as enrollment services professional is to be intimately involved in discussions about technology on your campus. Discussions regarding the student system as well as other aspects of administrative computing all affect resource allocations, data management, and infrastructure issues, to name a few. In our ever-more-integrated world, with ever-more-limited resources, we must try to remain aware of decisions and issues that may affect the future of our student information system.

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[3] See http://www.educause.edu/asp/doclib/abstract.asp?ID=PPR0026 to view an abstract/place an order for a copy of the referenced paper

If your institution decides to replace its student information system, preparation of an RFP (request for proposal) will be the next step in the process. This document serves as public notice that you are seeking to replace your current system. (If you have not been involved previously in preparing an RFP, you may wish to visit the EDUCAUSE Web site at http://www.educause.edu; it contains some sample RFPs, some of them specific to student information systems.)

The RFP typically includes sections on:

- background and scope of the project;
- instructions to proposers;
- instructions for preparing proposals;
- technical specifications;
- the procurement process;
- the evaluation process and criteria; and
- general contractual terms and conditions.

Reviewing the RFP draft with operational-level staff in the offices that will be affected is a valuable exercise, in terms both of determining whether all necessary functionality has been covered properly and of achieving buy-in.

Researching Product Options

Current leaders in administrative computing software for higher education—such as Datatel, PeopleSoft, and Systems and Computer Technology (SCT)—are likely to respond to the RFP, as are other vendors with lesser-known products and even some new players in the market. Continuing advances in technology portend some new options for higher education, making this a good time to consider new administrative computing options.

Datatel and SCT, for example, offer "canned" products. Their software is ready-made, built around general constructs of how colleges and universities conduct business. Purchase of these projects includes a source code (original programming) which gives you the option of modifying the software to meet your needs more precisely. (Whether to modify is a management decision we will discuss in a later section.) These companies also have entered into partnerships with other software vendors to provide additional functionality, such as mass classroom scheduling and Web portals. PeopleSoft, a relative newcomer to the market, has taken a slightly different approach, allowing users to pick and choose among various software options to form a student module, for example, from more than one product. The PeopleSoft product goal may best be described as a "tailored" solution to your information technology needs.

Vendors' proposals should be evaluated against your institution's particular needs, costs, support provided for implementation, and the extent to which the product will enable your institution to meet future demands. Read the proposal very carefully, and ask questions. If possible, send teams from your institution to other campuses where the software product under review is in use. If travel is not possible, communicate with experienced users by telephone or compressed video. Vendor presentations on site are standard procedure; schedule them so that as many staff and faculty as possible can attend. Ask lots of questions, and take careful notes. Hold debriefing sessions after the demonstrations and discuss staff and faculty members' reactions and concerns. Make certain the end-users in critical areas are actively involved in the discussions.

Deciding whether to purchase a "canned" product or one that is custom-built for your institution can be contentious, divisive, and gut-wrenching. Logical and persuasive arguments will be presented on both sides of the issue. Emotions can run high, and the extent to which the decision-making process has been divisive will affect the smoothness of the transition. In other words, once the choice has been made as to whether to purchase a "custom" or "canned" product, be prepared to work closely with individuals whose side did not "win" to ensure that their concerns continue to be addressed during implementation. There is no right or wrong answer as to whether to purchase a canned or custom-built product for your campus. Ultimately, the decision must rest with senior administrators who must take budgeting, staffing, and management issues into account in order to determine the best option for your institution at that particular point in time.

Pros and Cons of the Custom-Built Option

Given the convoluted, institution-specific academic policies that we often are required to implement, a custom-built software product has certain appeal. Public institutions may be responsible for state reporting or administrative demands that fall outside the realm of "standard practice," thus suggesting that custom software might be appropriate. Similarly, community colleges supported by county tax dollars may be required to comply with reporting and administrative demands that might not fall within standard practices as defined by "canned" software. Private institutions, untethered by state oversight, may have adopted innovative approaches to academic planning and program delivery, as well as financial and administrative operations, and thus may require a unique computing solution.

These different scenarios suggest how a custom-built product might be the preferred option: the institution could continue to conduct business with all of its "non-standard" practices accounted for in the base programming. (For the purpose of this discussion, we will not address the option of custom writing a product using your own staff and resources. If you have the capability of writing and maintaining your own systems, you likely will not need to consider this option.)

Maintenance is the primary "con" of selecting the custom-built option. The financial aid office provides a good example of how maintenance is of the utmost importance in serving students. Federal regulations change constantly, requiring financial aid administrators to upgrade their software constantly. Once your custom-built system is in place, how frequently and on what basis will upgrades occur? As new technologies are made available online, how will they be incorporated into your custom-built system? What will be the ongoing costs—fiscal and human—of incorporating the new technologies into your system? A custom-built student information system may be more viable for the short than for the long term. Some of the unusual requirements that lead you to choose the custom-built solution may prove unnecessarily burdensome in the future.

Your institution may choose a custom-built product in an effort to avoid determining whether its non-standard practices really do make sense and serve its faculty, staff, and students as well as intended. Choosing a custom-built product may be a way to avoid some painful, but necessary, conversations about the short- and long-term efficacy of the institution's administrative systems. As Captain Kirk reminded us in *Star Trek IV: The Undiscovered Country*, "People can be very frightened of change." Is fear of change part of your campus culture? Will you custom write administrative software in order to avoid close examination of procedures and practices that perhaps do not make as much sense as they once did? Given the real and human costs of implementing a new student information system, institutional procedures must be evaluated carefully.

Pros and Cons of the "Canned" Option

"Canned" student information systems provide modules that meet standard functional requirements and are "ready to wear." Basic registration, grading, transcript, and degree audit functions typically are in production within two years, depending on the size of the installation. Software companies such as Systems and Computer Technology (SCT) and Datatel engage in technical currency programs to ensure that their products continue to evolve.

The "annual licensing fee" essentially is insurance that the vendor's technical currency program will keep the product up-to-date. In terms of staffing, this is an important advantage. Hiring and retaining staff to keep your institution's technology current can be costly and overwhelming. The software vendor has resources in this area that most institutions do not, including resources devoted to product development. Previously, maintenance was primarily about keeping the student information system working; now it is about keeping the system working and continuously improving it.

PeopleSoft, Datatel, and SCT, for example, hold annual user group meetings that provide an excellent forum for the exchange of ideas and information and the resolution of problems. If you choose to purchase a custom-built system, you will have no "user group" with which to exchange ideas and information.

The drawback to the canned option is that it typically is written in accordance with standard practices and the more commonly held beliefs about the way in which registrars, admissions officers, and other enrollment services professionals provide basic services. The canned product is designed to serve the needs of many, reflecting as many commonalities as possible. If the canned product needs to be modified or debugged, even slightly, programming staff at your institution may find themselves trying to decipher code that has all the characteristics of a bowl of spaghetti. (Trying to fix code that you did not write itself presents interesting challenges.)

Vendors of canned products will implement enhancements and prioritize debugging efforts in response to the most common complaints or requests. Your particular institution's suggestion or complaint regarding a baseline modification or enhancement might be low on the list of the vendor's priorities.

To Modify or Not to Modify

If you choose the canned option, you will have another choice to make. In a "vanilla" implementation, you force-fit the student information system to meet your needs. This may mean re-engineering your processes and re-examining your policies if there are some functions the system cannot accommodate. This can be troublesome for the enrollment services professional who is caught between a hard-and-fast rule barring modification and a faculty, for example, that embraces a "software does not drive policy" stance. If your institution follows the "no modification plan," the implementation process will require creative thinking as well as delicate negotiations.

Even if the "vanilla" implementation results in minimal collateral damage, you still will have relationships to repair, and it may be some time before the administration, the staff, and the faculty are as comfortable with one another as they once were. The "vanilla" implementation may make life easier for those staff who otherwise would have to reapply the modifications each time the software was upgraded, but it can feel unsatisfactory to those (including faculty) who feel that governance has been transferred, by default, to the technology managers. Creative means of mitigating these feelings and sensibilities must be pursued.

The other choice is modification of the baseline system to make it work properly for your institution. What information technology staff and administrators worry most about in this scenario is the time and effort that will be necessary to reapply the modifications when new versions of the software arrive. This is a legitimate concern.

Most institutions that have implemented a canned product have wrestled mightily with this problem. If you allow modification, to what extent do you allow it? A significant part of the answer lies in how well-staffed your institution is both to write and to reapply the modifications. Another part of the answer may lie in how your administrative computing system is administered (centrally, by the information technology or computer center, or decentrally, by a combination of information technology center staff and staff in the user offices). In the system is decentralized, your institution might have a better chance of managing the modifications more efficiently because staff dedicated to maintenance of the module most likely are housed and funded outside the computer center.

If the choice is made to allow modification of the canned product, it is imperative to engage in process analysis to determine whether the requested modifications are really necessary or whether they are part of a "but we've always done it that way" mentality. It is imperative to examine your business processes to determine their practical and technical currency.

Re-engineering Processes

The term "re-engineering" has been used so much in recent years that it has become fodder for cartoonists. Although many of us delight in the antics of characters such as Dilbert and Dogbert, the re-engineering of processes to improve the efficiency of systems in higher education is a necessary evil. A search on the Internet or a review of publications related to higher education will reveal that many institutions have implemented re-engineering projects; some have even proved successful!

Technology has heightened the need to re-engineer processes and has quickened the pace at which change must be examined and acted upon. We have been re-engineering processes in higher education for many years now, but at a much slower pace and with more limited options from which to pursue alternatives.

Sessions at the EDUCAUSE, CUMREC, and other software vendor user group meetings continue to address the need for business process redesign as part of systems replacement and improvement. Rice University has done significant work in this area, as has Cleveland State throughout its PeopleSoft implementation (see the Information Resources Library link[4] on EDUCAUSE's Web site).

Centralized or Decentralized Management of Administrative Computing

Administrative computing traditionally has been managed from a central office referred to as "computer services," the "computer center," or, more recently, "information technology services." Some institutions have veered off this well-traveled path and have decentralized management of their administrative computing systems. Which approach an institution chooses has far-reaching implications.

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[4] See http://www.educause.edu/ir/ir.html

The case to support the centralized model of administrative computing management might include the following:

- A single point of control from which all modules can be monitored for consistency of operation, quality, security, and adherence to set policies and procedures.
- Resources—human and mechanical—can be managed in accordance with a broad view of institutional needs.
- Competing needs for resources can be evaluated and addressed within the larger context of institutional needs.
- Decisions regarding technology are not dependent upon the expertise and commitment of individual directors; instead, central leadership is provided by the director of information technology resources.
- Issues such as training are managed centrally so as to ensure consistency.
- Knowledge and expertise reside within one administrative unit where the active exchange of ideas and learning promotes the highest level of technical competence possible.
- Security—particularly in light of recent hacker attacks—is best accomplished when access is closely guarded and when firewalls are placed and monitored by staff who are specifically trained for and assigned to this task.

However, the centralized model of managing administrative computing can be criticized on the basis of the following inherent weaknesses:

- The central point of control may provide a consistency of operation that is desirable, but ultimately, the registrar, director of admissions, director of financial aid, and other enrollment services professionals must determine whether their computing systems are operating at optimal levels.
- Quality control pertains to how well students, faculty, and staff are being served by the system, yet computing center staff are removed from those constituencies.
- In serving the needs of the many, centralized managers and programmers may find it difficult to understand the importance and sensitivity of academic and administrative problems faced specifically by the registrar, admissions director, and other enrollment services professionals.

- Pressure for increased enrollments as well as pressure to remain competitive with other institutions in terms of the types of technology-based services being provided is foremost in the minds of admissions directors and registrars yet may not be felt by computing center staff.
- Enrollment services professionals must strive to remain current with issues, regulations, and constituent needs in their respective areas. Must information technology center directors be as familiar with these as they administer technology from a centralized location? Expecting them to maintain such expertise may be both unreasonable and unachievable.
- Given that the public and the workforce are increasingly computer literate, has the time come to decentralize management of the student information system so that installation and maintenance of the software can be conducted at the lowest level within the organization?

Arguments in support of the decentralized mode of managing administrative computing include the following:

- It provides for controls at the grassroots level.
- It ensures that decisions are made by those best qualified to determine needs and desirable outcomes.
- With resources deployed in the user offices, priorities can be established and achieved within a context that applies directly to the students, faculty, and staff who are on the receiving end of the technology.
- With proper communication and coordination plans in place, the needs of the registrar's office, the admissions office, etc. need not compete for time and attention.
- By working within the units themselves, technical staff learn how business is conducted on a daily basis and gain practical knowledge of the clients being served.
- By working within the user offices, non-technical and technical staff learn to "speak the same language." They learn from each other, and in the process, they improve upon the system and the way in which business is conducted. Re-engineering becomes a more "natural" process that flows from the daily interactions of the staff.

Many concerns about the decentralized mode of managing administrative computing applications are substantive. For example:

- Housing and managing information technology decisions, staff, and equipment within the user offices may be a frightening concept, particularly for managers whose computer literacy is limited.
- Directors of those offices would have to possess sufficient expertise to hire and supervise technical staff. Though they would not have to be computer wizards, they would have to be sufficiently knowledgeable to manage information technology decisions and resources effectively. For some, this would be a radical departure from "tradition."
- Budgeting for and filling technical staff positions is a challenge, particularly as technical staff in today's economy are paid much more than clerical or even professional staff and are relatively few in number.
- With control of the module located in the user departments, special care must be taken to ensure consistency of operations; to ensure that proper security measures are in place; and to distribute the load on the main computer and network systems in a viable manner.
- Communication and coordination with other module managers and the central computing office must be maintained at consistently high levels.

The key issues in managing administrative computing in either a centralized or decentralized manner are staffing, budgeting, communicating, security, and effective use of shared resources. The size of the institution is likely to prove the overriding concern, with smaller colleges and universities likely to find it impossible to support the decentralized model.

Mid-sized to large institutions might find the decentralized model more practical for a variety of reasons. Administrative computing is not the only game in town; academic computing and student computing issues require increasing attention and resources. The decentralized model might facilitate the "farming out" of large and complex computing problems and projects to user offices in manageable-sized "pieces."

Options for Managing the Project

The size of the institution and the scope of the implementation will determine the most viable means of implementing a new information technology system.

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A project manager necessarily will oversee the entire effort, developing a project plan that makes sense given the institution's resources; developing a task list to ensure that each aspect of the implementation proceeds on schedule; coordinating the flow of information; removing "roadblocks" from the decision-making process; supervising the development of training programs; appointing a team or committee to analyze security issues and solve any related problems; appointing a team to review campus infrastructure issues; and ensuring effective communication with campus audiences.

The project manager may be granted considerable authority, directing the project from a position of relative autonomy and answerable only to senior management. The project manager also may serve as a facilitator or coordinator, directing the activities of teams or committees charged with assessing problems and making decisions at lower levels. The role of the project manager must be clearly defined at the outset to ensure that everyone involved understands at what levels decisions will be made and how the teams or committees will function. Once it is decided how much authority and autonomy the project manager will enjoy, remaining structures will fall into place.

The use of cross-functional teams will be of particular interest if more than one module is being implemented or if the scale of the project is sufficient to require discussions and decision making across organizational lines. Cross-functional teams provide critical assurances in two primary areas: First, they can ensure that decisions are made within the larger context of the office, the enrollment services area, and the institution. The myopia that can afflict decisions and actions can be avoided by facilitating an "inward and outward looking" approach to all aspects of the implementation project. Second, cross-functional teams can bind staff together in new ways and increase knowledge and awareness of other offices. Enrollment services staff who come to better understand their colleagues and their colleagues' work may gain new insights into problems and issues and thus find they are better prepared to analyze the impact of their decisions and actions on other offices.

Regardless of whether the authority to guide the project is relegated to one individual or spread throughout the organization, both technical and non-technical staff must be actively involved in the implementation. Non-technical staff should not be observers of the process; rather, they must be intimately involved in it. The project plan must be distributed widely; regular meetings should be scheduled, with minutes prepared and distributed in a timely fashion; and continuous communication should occur among the project manager and team leaders and the offices involved in the implementation. The most important aspects of successfully managing the project are organization, communication, and efficient problem solving.

"Project management" is a topic in the Information Resources Library section of the EDUCAUSE Web site.[5] The site provides links to documents from Keene State University, Purdue University, Lincoln Land Community College, Arizona State University, and Lafayette College, among others. The documents discuss various aspects of project management and describe how the institutions navigated the complex course of implementing student information technologies on their campuses.

Developing a Project Plan That Makes Sense

Developing a project plan that makes sense requires analyzing staff resources, the individual office's preparedness to make the transition, and the campus infrastructure, as well as honest discussion of "what it all means." It is important to use common sense in developing timeframes. A project plan that sets unrealistic goals or that calls for too much too soon will undermine efficient completion of the project.

In an effort to ensure efficient and timely progress in the implementation and to recognize where its stresses are likely to be most pronounced, it is important to analyze the institution's human resources to determine the kinds and lengths of commitments required by technical and non-technical staff. Depending upon the extent to which human resources will be stretched during the implementation period, some daily activities may need to be limited or even curtailed. If certain processes or functions can be curtailed or eliminated during the implementation, take early action to do so. Specify these "business adjustments" in your project plan, and be sure that the intentions and reasons that underlie them are clearly communicated.

Each office involved in the implementation must be reviewed to determine its readiness to undergo the transition. Professional, classified, and technical staff must be involved in the planning and must develop a clear and comprehensive understanding of what the project involves and what its likely effects will be. Contingency plans for the continued provision of service must be developed in the event that any aspect of the project falters or fails. If, for example, the registration system fails to come online at the required time, a contingency plan needs to be in place so that registration can continue in the interim.

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[5] See http://www.educause.edu/asp/doclib/subject_docs.asp?Term_ID=139

Closely analyzing the campus infrastructure to determine its overall readiness to handle the new technology appears to be another "no brainer." However, some institutions have been subjected to severe growing pains because they failed to adequately predict the impact either of marrying new technology to old or of the increased strain on the system resulting from increased access by staff, faculty, and students.

Be sure that you have the staff to do the work and that they understand their roles; that the offices involved are ready, willing, and able to make the change; and that your infrastructure can stand any resultant strains. A project plan that accounts for these factors will ease the implementation process for everyone.

The Project Manager

Regardless of whether the project manager is vested with central authority or charged with facilitating the work of teams, the successful individual in this position must possess extraordinary organizational and communication skills. Excellent problem-solving and negotiating skills are crucial. The ability to readily understand both the technical and human factors involved in the implementation of a student information system can make all the difference between a painful transition and one that succeeds with minimal "collateral damage" to humans and/or systems.

The successful project manager will be task-oriented, because there is an enormous amount of work to be done, almost all of it sequential. Continuous progress is necessary to keep the implementation from becoming mired in a costly morass. Serving simultaneously as taskmaster, cheerleader, diplomat, and caretaker, the project manager must perform a careful balancing act.

A results-oriented job description should be written and approved before someone is hired or assigned to serve as project manager. Expectations should be clearly defined before the duties begin. The search committee charged

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with identifying the project manager should include a representative cross-section of technical and non-technical staff.

Production and Development Databases

Software vendors that demonstrate products on your campus usually connect to databases prepared for that specific purpose. Thus, the demonstrations are not "real-world tests" of the product. Visiting an institution that already uses the product you are considering is therefore a critical step in the decision-making process.

Beyond that, installing a pre-production database on your campus will provide a "safe" environment in which to install and test new versions of your software. Bugs can be identified and fixed before the new version is released for general use. The pre-production database also provides a safe environment in which to test modifications before applying them for general use. Some institutions also have installed a separate training database.

Installing the pre-production and training databases on machines separate from the production database will ease the strain on your main system, giving developers and trainers a safe haven in which to conduct testing and prepare training programs.

Training Options

Implementation of a student information system always requires training. Software vendors provide such training, but the cost thereof can be substantial, and the training is, of necessity, "generic." It is not geared to specific institutional circumstances, and its quality can be inconsistent. Training purchased from and supplied by the vendor will provide the overview you need to get started; it is a good springboard from which to develop your own internal training programs and documentation.[6]

If you find that the training provided by the vendor needs to be supplemented, it is possible that you could contract with staff at other universities where the product is in production. (Colleges and universities usually have some provisions for staff and faculty who wish to provide consulting services.) Of course, a cost factor will be associated with this option, as well.

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[6] See http://www.datatel.com, http://www.sctcorp.com, and http://www.peoplesoft.com for information on the implementation, organizational, and training services that may be purchased.

Companies such as UserTech[7] offer both "going live" and post-implementation services such as "training the trainer" and preparing documentation manuals and reference guides. In preparing your request for proposal (RFP), you may wish to request information on which companies, if any, the vendor has such business relationships with.

Going It Alone—or Mostly Alone

Your institution may decide to purchase a limited amount of training from the software vendor or to bring in a consultant from another institution (or another third party). The bulk of responsibility for training then will fall to your own staff. Following some basic ground rules will ensure a more successful training program.

- Keep it as simple as possible, and understand that learning styles and computer literacy among staff, faculty, and students vary.
- Consider your audience(s) as you develop the training program, and make adaptations according to whether the audience is faculty or staff.
- Offer "training sessions" for those who need a more intensive learning experience and "orientation sessions" for those who need less intensive exposure.
- Prepare a "cheat sheet" for quick reference, particularly if you are adopting to a more complex student information system that initially may seem intimidating to your users.

Recruiting end-user department staff to be "trained as trainers" can be a powerful and cost-effective answer to the training dilemma. Trainers who actually use the module every day learn the "tricks" that make the product less mysterious and therefore less intimidating. Staff trainers from the admissions office, the registrar's office, the student accounts office, etc. already "speak the same language" as the staff and faculty they will train. Their working knowledge of a particular student module can add to the self-confidence of users across campus. Arriving at the point where the general consensus is "Yes, we can do this" is a shared reward that can help smooth the portion of the implementation path that lies ahead.

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[7] See http://www.usertech.com

The training program should provide adequate opportunities for feedback so it can be adjusted and improved. Trainees should evaluate each session so trainers can determine what worked and what did not, or what was helpful and what was not. Staff and faculty also should leave the training session having signed an agreement to protect the confidentiality of student information in accordance with the Family Education Rights and Privacy Act (FERPA) of 1974, as amended, state laws, and institutional student records policies. Trainees also should be provided with contact information in the event that they require assistance.

Ideally, a training facility would be identified and equipped properly prior to the beginning of implementation. A centralized training facility can be an important feature, but flexibility and a willingness to provide special training sessions at different locations on campus foster good public relations and are in fact a practical way of assisting staff and faculty who may find it difficult to leave their offices.

Assigning regular staff to serve as trainers likely will require that the project manager shift some duties, rewrite some job descriptions, and make other, related management adjustments. Though this requires significant effort, the long-term benefits will be considerable. Initial demands on trainers will be substantial, but the need for training will diminish as implementation is completed. Refresher sessions and training for new faculty and staff will not require as large a time commitment.

Updating documentation—including upgrades for new software versions—as implementation proceeds will ensure continuity and consistency. Post documentation on your Web site to facilitate easy access.

Students are increasingly computer literate; publishing instructions for online or telephone registration, as well as for accessing other functions and services, in your institution's schedule and on the institution's Web site likely will be sufficient. Prior to implementation, an insert could be printed in your institution's student newspaper. Some institutions that have adopted an enrollment services center model for housing-relevant offices have installed self-help computer stations near those offices, enabling staff to help students learn how to help themselves. (The University of Oregon and the University of Idaho offer similar conveniences.)

Access and Security Issues

Determining who on your campus should have access to student information is critical in the implementation of a new system. The type of access—view versus maintenance—that each person is granted is another critical decision. The larger issue of system security has been highlighted by recent "denial of service" attacks on popular Web sites. The EDUCAUSE Web site is a good source of material on security issues that doubtless will loom even larger in the future.

Key components of any discussion of access and security include awareness, the continuing education of users, system administration, institutional policies, and controls to ensure compliance with institutional policies. Risk assessment is another important aspect. Auditors are looking at security issues with heightened interest and consultants are doing brisk business as our campuses become more wired and as we shift more information and services to the Web.

Registrars, admission directors, financial aid directors, etc. are all aware of FERPA, state law, and institutional policies regarding the privacy of student information. We also are well aware of the need to maintain and protect access to PINS (personal identification numbers) and other pieces of information needed to access the registration system and other online services.

The broad application of technology in our areas of responsibility requires that we cultivate a better understanding of access and security issues at higher levels. If we are to work effectively with managers in the information technology center to protect our data, we must develop a better understanding of the many ways in which we may be at risk. For example, running a local network can be an additional risk if adequate firewalls are not put into place. Every decision about how access to your systems is gained must be scrutinized, from the highest level (information technology managers) to the lowest (technical staff in your office).

The type of access—"view only (query)" or "maintenance (change)"—granted to faculty and staff should be determined according to individual job requirements. The "acceptance of responsibility form" that most institutions use to certify that an individual has had proper training and instruction for

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access to student information may contain a specific list of forms (screens) to which that person is granted query and/or change access. This additional record-keeping protocol serves both to keep track of the specific level(s) of access granted and to remind both the trainer and the trainee of the need to understand these issues thoroughly before accessing information.

"Legitimate educational interest" is the primary justification for allowing query access. The individual should be given query (view-only) access to the information only if he requires such access in order to perform the duties assigned him by the university or college. Although query (view-only) access does not carry with it the level of responsibility that change (maintenance) access does, it still must be awarded with due caution and with careful explanation of how the data should be handled. For example, an individual may not be able to change data affecting a grade point average, but such data are confidential and must be handled in accordance with FERPA and institutional policies. Even query (view-only) access must not be taken lightly.

Change (maintenance) access must be awarded with due caution and monitored carefully. It is particularly important to assign a user group to write and maintain procedure manuals and to review issues as they arise. Problems such as the creation of duplicate records and the entry of erroneous information on student records can become nightmares for both the student and the university. Some student information systems contain "super forms" that allow maintenance users to change various pieces of data that have profound implications for the registration and billing process. If, on a single form, one could override the maximum number of credits for which a student can register in a given semester, change a code that affects what fee (tuition) rate the student pays, override holds that otherwise would prevent access to the registration system, etc., inappropriate or careless use could result in knotty situations not easily resolved. For institutions that decentralize responsibility and function for enrollment services, these are particularly important issues for training, for monitoring who has access for what purpose, and for resolving problems.

Having discussed query versus change access, we now must consider who makes the decisions and what kind of organizational structure is needed to support the process of granting access to student information. Depending upon the configuration of your institution's information system and how the administrative system as a whole is managed, the discussion may involve other administrative areas such as student accounts, admissions, and financial aid. If these modules are managed separately, the offices must agree as to how decisions about staff access to data will be made.

Institutions that manage technology centrally (e.g., in the computer center) typically will approve requests for access at that level, with policy input from the registrar, financial aid director, or other directors to ensure that all appropriate considerations have been made in the process. It is important to review procedures and policy regularly so as to accommodate changes in the technology as well as changes in management decisions. The computer center and the office directors should be notified of personnel changes in key areas in order to ensure that the staff charged with making decisions about access are known to all involved. Some institutions have formed a "systems management committee" with members drawn from the end-user offices and the computer center. Access and security are appropriate topics for such a committee.

If the technology is managed in a decentralized manner, the "module owner" (registrar, director of admissions, etc.) will process and approve requests for access. Particularly in the decentralized model, it is critical for the "module owners" to communicate effectively with one another and with the managers in the computer center to ensure that all of those responsible for granting and monitoring access remain current on policy issues. A "systems management committee" is even more important in the decentralized model given the greater likelihood of ineffective (or non-existent) communication.

Value-based security is a means to restrict the extent of a user's access to student records. It might be desirable, for example, to limit College of Engineering staff and faculty access to College of Engineering student records. This is one way to enhance the enforcement of "legitimate educational interest." In theory, the only student records that should be of legitimate interest to College of Engineering staff and faculty would be those of College of Engineering students. This approach to restricting access must be planned very carefully to ensure that the proper safeguards exist, yet without placing unnecessary obstacles in the paths of those users who need access to serve a broader range of students. The training program must include an explanation of what value-based security means, how it works, and why it is the preferred means to limit access to student records.

Safeguarding the security of your student information system is a many-pronged, worrisome, and often daunting task. Aside from developing internal access procedures and policies that make sense, efforts must be taken to repel hackers and to protect data as they leave your institution. Encryption provided by companies such as Verisign can be used to protect information as it travels across the Internet. It is clear that security has various layers and aspects which must be analyzed and managed at different levels in the organization.

Budgeting and Infrastructure Issues Related to a Large-scale Implementation

One might imagine that implementation of a new student information system is less onerous—financially, at least—for larger institutions because they (theoretically) have more discretionary resources. One might imagine that they have more financial pots from which to budget costs and more flexibility in terms of staffing. Yet these assumptions are not entirely accurate.

Administrative software usually is priced according to institutional enrollment: The more numerous the audience being served, the higher the cost of the student information system. Databases such as Oracle are priced according to the number of concurrent users (licenses): The more concurrent users who require access to the student information system, the more licenses must be purchased.

Issues of the large-scale implementation extend beyond institutional size. A large-scale implementation also might be defined as one in which the institution intends to migrate substantial amounts of data from the legacy system, install peripheral software to enhance existing functions, and install technology in areas that were not previously automated. All of these together mean that more computing power will be needed, that disk space on the main computer may be an ongoing issue, and that new users almost certainly will be added.

Development of a business plan to budget adequately for software, hardware, and infrastructure in both the short and long terms is a critical exercise. The long-term budget ramifications should be projected before the implementation begins. (Recent stories in *The Chronicle of Higher Education* describe the dangers of cost overruns in large-scale implementations. Also, visit the EDUCAUSE Information Resources Library[8] for some interesting reading on the subject of budget and funding issues.)

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Third-Party Software: What to Consider and What Support Will Be Provided, and How

Whether your new student information system is of the canned or custom-built variety, you likely will consider third-party add-ons. Mass classroom scheduling, events scheduling, Web portals, applying for admission on the Web, degree audit, providing information and services through kiosks, and document imaging are examples of functions that may be served by third-party software.

Miami University of Ohio's DARS degree audit system has been in use for some time now at institutions running a variety of administrative software packages. CollegeNet and ApplyYourself are software products used for recruiting and admissions activities. Touchnet provides access to information and services through kiosks located throughout campus.

Some of the major players in the student information systems market have partnered with other companies to provide complementary packages to their base student systems. In theory, this partnering should make the interfacing and managing of these add-ons less resource-intensive for the institution.

Any third-party product will have to be interfaced with your student information system and with each product that you add. Maintenance becomes a more complex issue. With each third-party product that you add, you will have to assign a member of your technical staff to manage it. Depending upon the extent to which you rely on different products to perform different functions, all feeding in to the larger student information system, this can become a resource-intensive way of operating.

It is prudent to form a central committee to review all requests for third-party software purchases. Although some of these products are priced reasonably, the investment goes beyond the initial pricetag. The ongoing human resources costs of maintaining the interfaces could become a management nightmare if add-ons are allowed to proliferate.

If you have more than one admissions office on your campus, for example, you might find that each is looking at a different product to complement its recruiting and admission functions. Is the third-party product really necessary

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[8] See http://www.educause.edu/ir/ir.html

to accomplish identified goals? Some agreement should be attempted so that three different products are not purchased. The central committee should be charged with sorting out these types of issues and making decisions that serve the institution's best interests.

Disaster Plans: What to Be Considered in Developing One

Planning for disaster is something that must be done. Scientists around the globe are calling for funding to build a larger telescope to search for Near Earth Objects (NEOs) so we might identify and track asteroids that pose a threat to our planet. The likelihood of our planet being struck by a NEO is minimal, but if a sizable object does collide with Earth, the results could be catastrophic. So too might be the risk to your institution should a fire, earthquake, or some other disaster destroy the facility that houses your primary computing systems. Measures should be taken to protect the primary systems on your campus, and a back-up system should be in place.

The back-up system should be capable of running your production database in the event of a disaster that renders your existing system unusable. It should be located in a secured area, in a facility that could support the activity required until the primary system was back online. The back-up system should be functional within 72 hours and should support an appropriate number of online users to provide at least minimal services until the main system could be replaced or restored. Performance of the back-up system should be comparable to the production system, although limited access might be required for a period of time.

In the event of a disaster, operations likely would be limited, and business practices likely would have to be altered, at least temporarily. Nevertheless, the back-up system should ensure that basic administrative computing functions remain intact.

During the ensuing recovery period, support for development or training would not be possible, and some standard protocols, such as database mirroring, would not be required. An important part of the disaster recovery plan is to have trained staff available to bring the back-up system online and to assist in replacing the main system.

The database back-ups should be as recent as 15 hours old, and offices should be prepared to respond to lost updates. Depending upon what other damage has been sustained, users may require a different procedure to access the alternate machine. This would necessitate configuration changes to the workstations.

System availability likely would be limited, and downtime for database backups and maintenance should be anticipated. Once short-term problems have been resolved, the search for a replacement machine should begin; following replacement of the main system, downtime will be required to transfer back to the primary machine.

Report Writing

Once you have implemented your new student information system and are satisfied with the data you have collected on students, courses, etc., you will need an effective tool for extracting the data. The need for good report writing tools is not always at the forefront of our minds in the implementation process. But it should be.

Part of your project plan should be to review the report-writing capability of the student information system you plan to install. If the system does not come with a package that meets your needs, review products such as BRIO and COGNOS to determine whether your institution needs to make this additional investment.

Data warehousing is another feature likely to be overlooked during implementation, but it should be included in your project plan. Data warehousing in fact may be one of your most critical post-implementation projects.

Gearing Up, Gearing Down

The process of implementing a student information system may seem to take on a life of its own. One may begin to wonder whether it will ever end. Gearing up to make the transition to a new system requires enormous commitments of time and energy. Once initial implementation is achieved, the project readjusts and refocuses to refine processes that do not yet work the way they should and to look ahead.

Some of the teams and workgroups established for implementation either will no longer be needed or will need to refocus their efforts. The systems support group and the director-level management group likely will turn their attention to scheduling software upgrades and evaluating new technology. (The almost continuous emergence of new technology requires constant review.)

Conclusion

Technology is an integral part of our lives at colleges and universities. Yet in terms of implementing a student information system, technology is simply a set of tools that we deploy to more efficiently and effectively perform our jobs, and thereby support the larger institutional mission.

Without the staff who make the technology work, the hardware and software would have little value. The successful deployment of information technology staff is necessary to ensure that the technology will be used to maximum advantage. The hot market for information technology specialists shows no signs of cooling off, and it is increasingly difficult for higher education institutions to compete with private industry, where salaries are higher, signing bonuses are attractive, and opportunities abound. It will be our continuing task to find ways to attract competent information technology specialists to our campuses. We may not be able to compete with private industry in so far as salaries are concerned, but we can address "quality of life" issues that might turn the tide in our favor.

Process improvement and innovative management strategies will continue to be our companions as we enter the twenty-first century. Managing technological change and human resources effectively will challenge us greatly in the coming years. Students entering our colleges and universities today are alert consumers whose expectations rise with each passing year. They will expect ever-faster services as well as conveniences we have not yet imagined, and they will have more choices as to how and where they complete coursework and earn degrees. Our skill at successfully implementing and maintaining student information systems thus will remain at the core of our mission to serve the institution and its constituencies.

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12

Information of the Realm

R. B. Wilkinson and Ange Peterson

> **"Out of clutter, find simplicity. From discord, find harmony. In the middle of difficulty lies opportunity."**
>
> —*Albert Einstein*

The Dark Ages

The history of converting data into information for the purpose of strategic enrollment management parallels that of the institutional research function. Institutional research (or the lack thereof) was the primary means of gathering information pertaining to any given college or university. Historically, the primary purposes of the institutional research office were threefold: First and foremost, the office was responsible for completing all mandatory external data reports in an accurate and timely fashion. Second, it was responsible for preparing and distributing the annual institutional fact book. Third, it supported institutional decision making with data/information. Though these functions may seem straightforward, the technology, equipment, and personnel required to support them were severely lacking.

Mandatory external reports were always completed and submitted on time. Data compiled for these reports focused on students, faculty, staff, revenues, expenditures, courses, library holdings, and selected ratios and were sent to one of several federal or state agencies. With the advent of IPEDS replacing the old HEGIS reports and the latest revision to the Higher Education Act, retention and graduation data were added to the list of submissions. These reports were not generated to assist an individual institution, but they served as evidence that much of the data necessary for decision making existed, was somewhat accessible, and was relatively valid and reliable.

Compilation of a fact book spoke to an institution's ability to convert data into information. But again, the fact book was akin to an executive summary of data, and in most cases, it did not provide the detailed information necessary for meaningful strategic enrollment management decisions. (One need only look at the table of contents of a few typical institutional fact books; most present basically the same information.)

Figure 12.1: Typical Table of Contents

1. Organizational Chart
2. Accreditations
3. Student Headcount by Level
4. Student Headcount by College, Department
5. Student Headcount by State and Selected Counties
6. Student Headcount by Country
7. New Freshmen Retention and Graduation Rates
8. Credit Hour Production by College and Department
9. New Freshmen by High School
10. Student Enrollment by Gender
11. Student Enrollment by Ethnicity
12. Age Distribution of Students
13. Space Utilization
14. Institutional Revenues by Source
15. Institutional Expenditures by PCS
16. Number of Faculty by College, Department and Rank
17. Average Age of Faculty
18. Average Faculty Salaries
19. Degrees Awarded by College, Department, Major and Level

What was absent from the institutional fact book was detail. Though a summary table may have been presented, it was impossible to explore the data more deeply to see what else was being affected. Theoretically, the fact book provided an institutional overview (clues); requests for further studies had to be made to "get at" the information needed. When such requests were made, the timeliness of reports became a factor. Although the fact book, in and of itself, was user friendly, the process of obtaining more detailed information was not.

The major limitation of a fact book was that the more information was added, the more the book grew, both in size and complexity. No one wanted to search for information by following an index or a table of contents or by flipping pages.

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Many institutional research offices addressed their third purpose—providing information to support decision making—by producing a valid and reliable fact book. (This is not to say that there was a complete void of other enrollment management research.) Most institutions relied on static data tables with little detail in making their enrollment decisions. The level of sophistication varied from one institution to the next, but most admissions offices used data and information to target their efforts. By default, they did much of their own research (some still do).

Figure 12.2: The Tools of the Dark Ages

Reliable and valid data
An institutional legacy (data) system
Summary printouts from the institution' s legacy system
A ten key calculator
A typewriter
A copy machine

The Middle Ages

In many ways, the state of institutional research for strategic enrollment management reflected the tools and technology of the times. It was not until relatively recently that the computer was even remotely user friendly. In the "dark ages" of the 1970s and 1980s, institutional data resided in legacy systems on massive mainframes requiring detailed programming knowledge. The concept "user friendly" was not really understood. Getting the information desired often involved several meetings with the institutional researcher, who conveyed the request to a programmer, who produced a massive green bar printout that required further hand calculations to obtain the information requested. It is plain to see how this process served to limit the amount of information requested.

So, what has changed since the dark ages? Technology changed everything, though the massive and detailed "green bar" output remained the same. As they became user-friendly, the personal computer (PC) and accompanying software turned many individuals into data analysts—or, at least, information users. But green bar reports continued to be generated.

Even as PCs became more prevalent, institutional data continued to reside in the institution's legacy system, and networks remained merely a glitter in the programmer's eye. It was about this time that extract files became useful. Data could be extracted from the legacy systems and imported to the PC for

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data manipulation. The problem was that all reports were paper-based and difficult to use.

Information technology has evolved rapidly. Today's software packages are vastly easier to use and they are even affordable. With the introduction of the Web browser and the dynamic ability of HTML, green bar reports quickly became a thing of the past. The Internet is serving to make information more manageable and user friendly. Utilizing HTML, massive reports are trimmed down to those pages of direct importance to any given user, though all the pages/information are actually available.

Figure 12.3: Benefits of Utilizing HTML Links

Drilling down deeper into reports is possible.

Linking a wide array of information to a common identifier becomes easier.

Developing dynamic interactive programs that analyze data and provide detailed output to the Web can be done on the fly.

The tools and the technology make the difference. In the dark ages, the only way to get the information wanted or needed was to rely on programmers and to ferret out the information from massive printouts. Today, PCs are everywhere, and data can be extracted from the legacy systems, downloaded to a PC, imported into almost any software, and then output on paper or to the Web. With new technology, detailed reports are easier to analyze and are available virtually whenever and wherever they are needed or wanted.

Figure 12.4: The Tools of the Middle Ages

Reliable and valid data
An institutional legacy (data) system
A personal computer and printer
Data management and spreadsheet software
HTML programming software
Summary printouts from the institution' s legacy system
A ten key calculator
A typewriter
A copy machine

The Age of Enlightenment

The dark ages and the middle ages focused primarily on cumbersome internal data and the output of difficult to use information to support enrollment decisions. To function in the current age of enlightenment, an institution must be willing to invest the time and energy necessary to redefine the institutional research function, restructure the information reporting structure,

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and re-engineer the concept of recruitment and retention into strategic enrollment management.

Thus far we have discussed two types of static information processes: the traditional fact book, which is paper-based, and the electronic fact book, which is an electronic version of the traditional fact book but with more detail and organized around the linking of pages on the basis of some common identifier. "Static" means that the data tables are predefined—built and either published or posted as Web pages at a fixed point in time. Information then is updated according to a fixed schedule based on census dates or some other arbitrary points in time. The paper version is more of an executive summary while the electronic version provides more detail along predefined lines of inquiry. Fact books typically are organized first by the type of data and then by the highest levels of aggregation (major institutional divisions, but rarely beyond the departmental level). Web-based fact books also are organized by type of data but proceed to the lowest level of aggregation deemed useful by the institution. Data sometimes are provided at the level of individual majors in academic departments; at other times, the level of aggregation of data remains quite broad.

The Web version of the fact book is far more user friendly than the traditional version. It provides a greater wealth of information in a way that is easy for users to access and navigate. However, both types of fact books focus on traditional types of data and organize them into basic two-way tables; frequency counts, percentages, or averages are the preferred modes of converting the data into information. Nothing about this is either special or unique. Though it is essentially the same type of data that has been provided for years, it now is more accessible.

Until the age of enlightenment, it was impossible to merge various data files and elements to provide detailed and complex information in a user-friendly format. Consider, for example, retention.

Assume you want to provide retention and graduation data for your campus. In addition to the traditional retention and graduation information, you want to show by department and major where students began and from what department they eventually earned their degrees. You want to track new freshmen, new transfers, and new graduate students as separate cohorts, and you want data from ten or more start semesters so you can establish trends. You

The Tools for the Enlightenment

Reliable and valid data

An institutional legacy (data) system

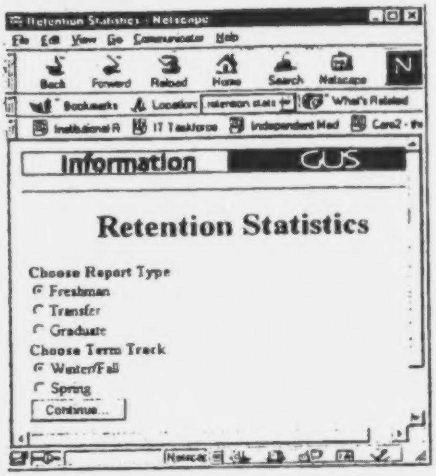
Programming tools

A campus intranet and access to the Internet

A personal computer and printer

Creativity

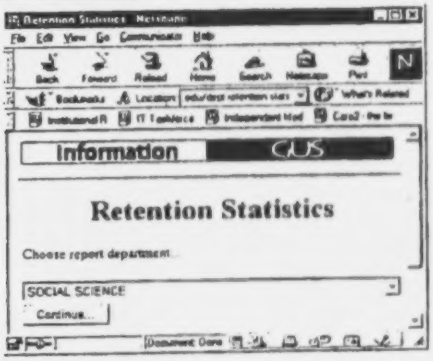
Figure 12.5


Retention Statistics - Netscape
File Edit View Go Communicator Help
Back
Forward
Reload
Home
Search
Netscape
N
Bookmarks
Location:
retention stats
What's Related
Institutional R
IT Taskforce
Independent Med
Care2 - the
Information
CUS

Retention Statistics

Choose Report Type
● Freshman
○ Transfer
○ Graduate
Choose Term Track
● Winter/Fall
○ Spring
Continue...

Figure 12.6

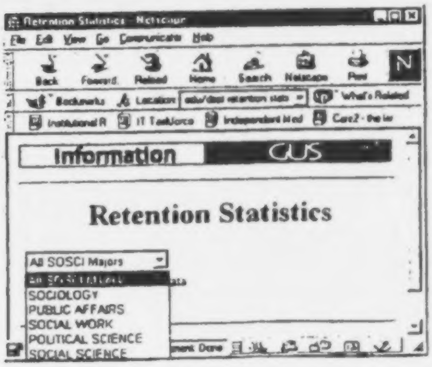

Retention Statistics - Netscape
File Edit View Go Communicator Help
Back
Forward
Reload
Home
Search
Netscape
Print
N
Bookmarks
Location:
What's Related
Institutional R
IT Taskforce
Independent Med
Care2 - the be
Information
CUS
Document: Done

Retention Statistics

Choose report department...

SOCIAL SCIENCE
Continue...

Figure 12.7


Retention Statistics - Netscape
File Edit View Go Communicator Help
Back
Forward
Reload
Home
Search
Netscape
Print
N
Bookmarks
Location:
What's Related
Institutional R
IT Taskforce
Independent Med
Care2 - the be
Information
CUS
Document: Done

Retention Statistics

All SOSCI Majors
SOCIOLOGY
PUBLIC AFFAIRS
SOCIAL WORK
POLITICAL SCIENCE
SOCIAL SCIENCE

want to provide these data for every major on campus, as well as for undeclared majors. You also want to use this report to identify feeder schools for each major and to track the success of students from those schools. The target audience for this information is the central administration, deans, and department chairs. The report requires that you look at two or more data files, depending on your legacy system, merging census day data, by semester, with degrees awarded data and current enrollment data.

Under the old paper reporting process, this report would be divided into three major sections (new freshmen, new transfers, and new graduate students), and each section would be subdivided further by college, department, and major. For the sake of this example, let us say that the campus has 4 colleges, 28 academic departments, and 100 degree programs, 20 of which are at the graduate level. At approximately 3 pages per major, this will result in a printed document of approximately 540 pages total. To navigate the report, the user would follow either the table of contents or the organizational structure of the document. In contrast, on a static Web site with links to enable the user to "drill down," the number of pages would remain the same, only the user

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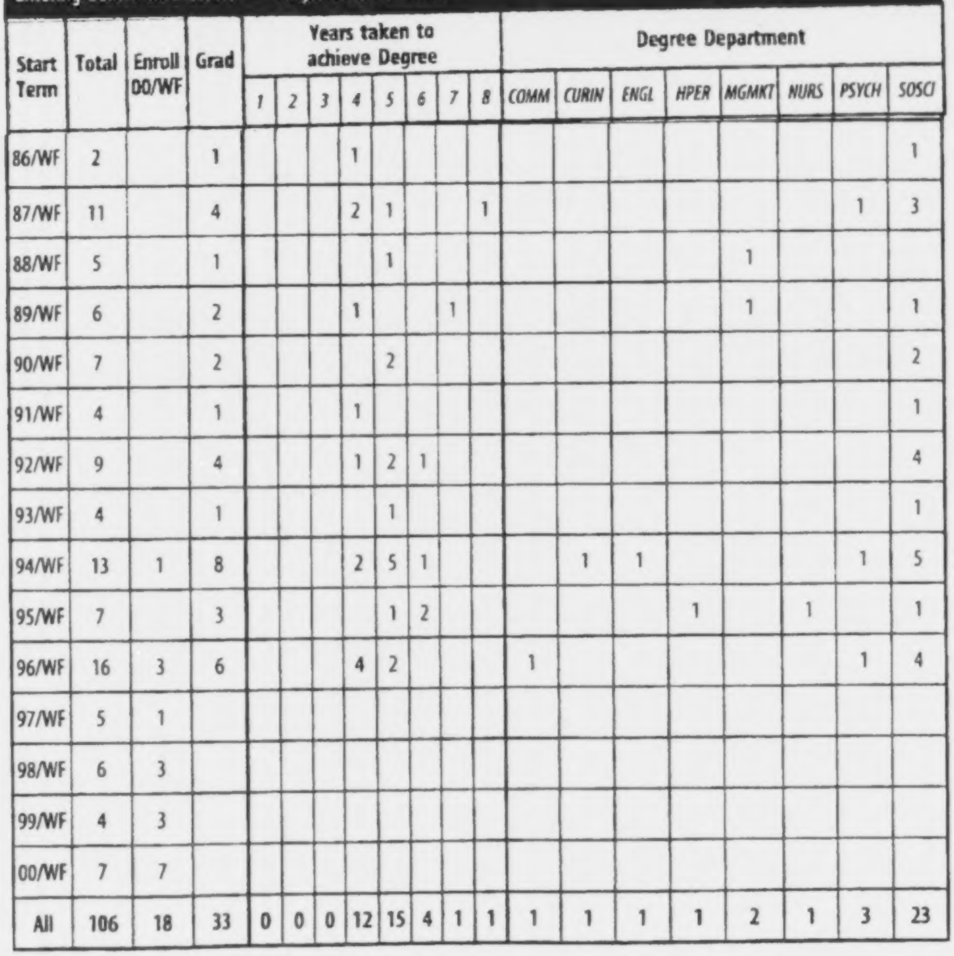
would follow only the information path of interest. Best yet, utilizing a Web-based applications approach, the user would make several selections on a menu and then navigate directly to the information being sought (see Figures 12.5 through 12.9, screen shots from one of many applications utilized at Pittsburg State University). Moreover, the reports would be running against live data which would be updated on a regular basis (depending on the type of report) to reflect the most current information available.

The first two (static) approaches require continuous maintenance and updating while the third requires development of the initial program and

Figure 12.8: Freshman Student Retention Data (Sample Report Part I)
Entering 86/WF thru 00/WF — Major: SOCIAL WORK



Start Term	Total	Enroll 00/WF	Grad	Years taken to achieve Degree								Degree Department							
				1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*COMM*	*CURIN*	*ENGL*	*HPER*	*MGMKT*	*NURS*	*PSYCH*	*SOSCI*
86/WF	2		1				1												1
87/WF	11		4				2	1			1							1	3
88/WF	5		1					1								1			
89/WF	6		2				1			1						1			1
90/WF	7		2					2											2
91/WF	4		1				1												1
92/WF	9		4				1	2	1										4
93/WF	4		1					1											1
94/WF	13	1	8				2	5	1				1	1				1	5
95/WF	7		3					1	2						1		1		1
96/WF	16	3	6				4	2				1						1	4
97/WF	5	1																	
98/WF	6	3																	
99/WF	4	3																	
00/WF	7	7																	
All	106	18	33	0	0	0	12	15	4	1	1	1	1	1	1	2	1	3	23

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Figure 12.9: Freshman Student Retention Data (Sample Report Part II)
Entering 86/WF thru 00/WF — Major: SOCIAL WORK

High School	Total	Enroll 00/WF	Grad	Years taken to achieve Degree								Degree Department							
				1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*COMM*	*CURIN*	*ENGL*	*HPER*	*MGMKT*	*NURS*	*PSYCH*	*SOSCI*
Abilene	1																		1
Arkansas City	1		1				1												1
Basehor-Linwood	1																		
Bishop Miege	1	1																	1
Blue Valley North	1																		2
Blue Valley Northwest	1																		1
Bronaugh	1																		4
Burlington	1																		1
Butler	2																		5
Campus	3		2				1	1						1					1
Clay Center	1		1				1												1
Clearwater	1	1																	
Columbus Unified	4	1	2				1				1								2
Derby	1																		

then tweaking only when the data elements actually change or when a new perspective is requested.

The Information Age

Regardless of how well an institution captures and reports data for decision making, there is always the fear of being *left behind*. (Of course, fear may be the driving motive for institutions to move forward and address their institutional visions.) Strategic institutions make decisions based on as much information as possible. Integrated student information systems such as those described in the preceding chapter allow for Web-based enrollment activities. In a click, student information is available to offices, advisors, and, most important, the

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students themselves. What does this Web-based scenario provide for institutions? Will some institutions be *left behind*? Does the following scenario sound familiar?

> *You now have Web-based enrollment services and one centrally located building that houses many of the student and academic services. Yet you still have issues! Students can't ask the office assistant in admissions for clarification on a business office hold; or maybe your students can only request an official transcript from the registrar's office. Students may have to visit two or three offices to get an answer to a relatively simple question as a result of the fact that each office houses separate student files and databases within the legacy system. Maybe running a report means you have to pull from different database screens with no virtual link between them. Depending on your point of view, one solution just created a different set of problems—or opportunities.*

The Tools for the Information Age

- Reliable and valid data
- An integrated student information system
- Programming tools
- A campus intranet and access to the Internet
- A personal computer and printer
- Content management software and hardware
- Creativity

To address the types of problems described above, institutions must abandon the "silo culture" of student information and, in so doing, expand the level of access. This leads to the next quest in the use of information for strategic enrollment planning: content management. A vast amount of research and data collection are required to implement a system that provides access, security, and ease of movement from database to student. The use of content management is both complex and comprehensive, encompassing the full spectrum of digital content. It embodies the basic philosophy of enrollment management: taking a prospective student through all phases of student life until the student becomes an alumnus and develops a lifelong commitment to the university. Content management in context provides a no-stop service that is located in a virtual environment and that can be accessed anywhere and anytime. For example, the Iowa State model maintains that collected documents relative to any student are available at any location. Content management places all files in a central physical location, making virtual no-stop shopping available anywhere an institution deems it should be merely by accessing a Web browser. This full spectrum of digital content includes document, media, and Web management.

The development of a system that is programmed to provide information for decision making can take on various formats. A homegrown or purchased database is the foundation for the role of content management. The database must be sufficiently universal to provide a person file that can be accessed by any office on campus. (Problems occur when an institution purchases a student database that does not interface with other offices or a document-imaging system that only mirrors paper files and holds information in cold storage only.) Getting to the integrated database and imaging process is the first step in the content management process. The sequencing of every item, from prospect to member of the university foundation, should be held in the workflow file. This requires research into how many pieces are imaged for each student, what feeds into the database from online forms, and how many offices actually maintain a portion of the records kept on each student. The system must handle admissions, financial assistance, registration functions, one-card programming, business and cashier office contacts, academic department communication, career planning and placement, and the alumni database. This simply means that by using indices, the content management system takes on various e-forms and is viewable by many constituencies in accordance with the "need to know" of each respective area.

Content management begins with initial contact, and that specific area must be addressed first. The database must interface with the purchased image pieces so that data entry and scanning occur at the inception of each contact. Under this concept, each division selected to begin imaging must identify the various ways in which information on each student is gathered. Each division that enters data into the student file must be identified, and the method by which that information feeds to the database must be clarified.

Figure 12.10: Sample Questions for Clarification

Does the on-line application or prospect card generate the information in the student admission database or must it be re-keyed?

Is the Web or e-mail communication tracked in the database?

Are advisors able to see a virtual file on the advisees as enrollment occurs?

Does loan verification require multiple entries and contacts?

Content management involves three areas that are interfaced with the legacy system: The first area (and often the only one) to be addressed is the imaging process. Internal and external paper documents are scanned, assigned an index or key for retrieval, and saved to the central system either optically or on disc. The applications of imaging are self-explanatory for most offices using paper documents to conduct business. The advantages of imaging include more secure files, visible

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workflow, an audit trail, the ability to make notes without changing any of the original document, and barcode capabilities. The benefit of imaging is increased institutional efficiency. A good imaging system provides concurrent access with system integration by using a single toolset and central backup.

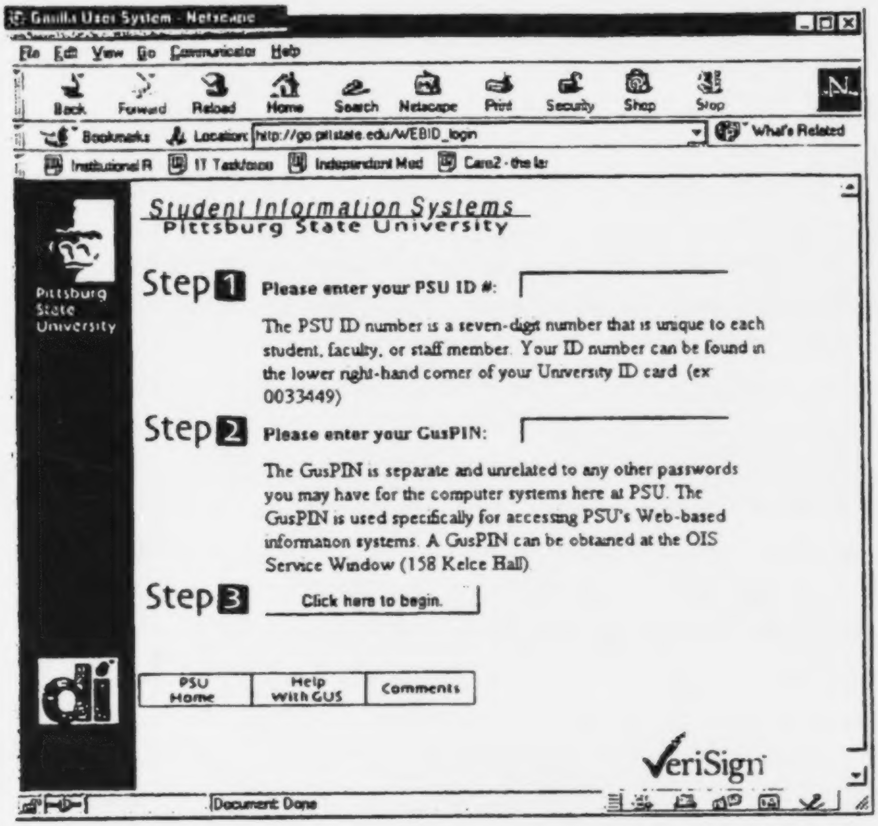
The following are examples of the variety of information gathered for the database in a typical admissions office (and for the document archive in the imaging process):

- hard copy inquiry cards,
- Web-based guest cards,
- e-mail inquiries,
- purchased list responses,
- telecounseling qualification,
- written communication from admissions and other departments,
- admissions applications,
- acceptance/non-acceptance notifications,
- follow-up contacts,
- campus visit days,
- high school/community college visits,
- scholarship letters,
- special tuition programs,
- transcripts,
- test scores,
- housing/orientation notification.

The second phase of content management occurs when an institution sets up the access to the document storage. When the documents are imaged, they are stored as archived documents in a central system. The Web browser then provides a single search interface that allows files/documents to be searched, viewed, retrieved, or printed. This can be accomplished with no special software (database) and in a familiar interface. By using a central storage system, verified access personnel can search the document archive completely. Manipulation is limited because of increased access standards; access must be authenticated. (See Figure 12.11 on the following page.)

With imaging in place and access to the document archive established in a central system, the ability to develop a report archive is next on the agenda.

Figure 12.11


Gorilla User System - Netscape
File Edit View Go Communicator Help
Back Forward Reload Home Search Netscape Print Security Shop Stop
Bookmarks Location: http://go.pittstate.edu/WEBID_login
What's Related
Institutional R IT Taskforce Independent Med Care2 - the la
Pittsburg State University
PSU Home
Help with GUS
Comments
VeriSign
Document: Done

Student Information Systems
Pittsburg State University

Step 1 **Please enter your PSU ID #:**

The PSU ID number is a seven-digit number that is unique to each student, faculty, or staff member. Your ID number can be found in the lower right-hand corner of your University ID card (ex 0033449)

Step 2 **Please enter your GusPIN:**

The GusPIN is separate and unrelated to any other passwords you may have for the computer systems here at PSU. The GusPIN is used specifically for accessing PSU's Web-based information systems. A GusPIN can be obtained at the OIS Service Window (158 Kelce Hall)

Step 3 Click here to begin.

These large institutional reports are immediately accessible and current. The reports are archived and can be stored in any media format. Again, manipulation of original reports is limited (non-existent) because of the archive security established. The reports can be retrieved, viewed, searched, and drilled down concurrently. It would seem that the biggest benefit to those in institutional research would be the system integration required to create the report archive. (Remember when census counts would differ just a few students from office to office, depending on the inform statement or the definition of the terms in the inform statements?) The commonality of the programming puts everyone on the same page (novel idea, eh?).

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What It Takes to Be an Information Templar

For strategic enrollment management to prosper and survive in the Information Age, it must be guided and protected by an *Information Templar.* The Information Templar ensures current, accurate, and accessible information and understands that it is critical. This need has not changed since the dark ages. It also is the most highly contested data issue. (Who has not heard "These data are no good!" from those who do not like the information being presented?) Nevertheless, the following questions must be asked:

① Are the data clean enough to calculate and collect tuition and fees?
② Are the data clean enough to complete the mandatory state and federal reports?
③ Are the data clean enough to support the annual budget request?
④ Are the data clean enough for the annual audit?
⑤ Are the data clean enough to enable the institution to see trends?

If the answer to each of these questions is yes, then the data should be valid and reliable enough for strategic enrollment management.

In the dark ages, all one needed was:

① to know how to get data out of the legacy system;
② to know how to work a calculator; and
③ to be able to type.

Ironically, not much has changed, except that the "calculator knowledge" has become much more sophisticated. Instead of a ten-key calculator and a typewriter, the Information Templar uses personal computers, with more computing power than the old mainframes, combined with laser printers which produce professional-looking documents at the desktop. The software is more user friendly and multifunctional than what previously was available, and the Information Templar can perform every type of data analysis and compile every type of information presentation imaginable with just a few keystrokes.

With the advent of intranets, the Internet, software suites, and Web browsers, the distribution of and access to data and information have become almost transparent. It is far easier to navigate and find the information one is looking for on a well-designed Web site utilizing a content management perspective than it is to find the same information in printed institutional documents. Use of Web-based applications and of the Web as the distribution point saves time, energy, and effort.

Being an Information Templar means possessing the ability to ask the right questions in your area of expertise, coupled with better-than-average information technology skills. Through the ages, information technology developments have outpaced our ability to keep up. Most students and university personnel have learned to use computers and related software to perform their work more efficiently, but few have considered how this technology can help change the fundamental nature of what they do. This is the role of the Information Templar in the Information Age: to use technology and information to change the way the institution does business while enhancing all of its interactions with all of its constituents.

In the case of strategic enrollment management, the Information Templar must be an information generator, an information user, a change agent, and an environmental scanner—and understand the role of postsecondary education in our ever-changing society.

13

Students in the Dot-Com World:

Implications for Enrollment Management

Jim Black

Case Study on Cal Poly, San Luis Obispo by James L. Maraviglia

Introduction

The title of a recently published book, *The "E" Is for Everything*, accurately conveys the ubiquitous use of electronic tools on college campuses. Seemingly overnight, a new lexicon has filled the hallowed halls of the academy. Words such as "e-mail," "e-learning," "e-recruiting," "e-care," "e-commerce," and "e-business" can be heard in the classrooms and boardrooms of nearly any campus today. But what are the implications of "e-everything" for the enrollment manager? What new opportunities and threats are inherent in or possible with electronic media?

Like any organization, colleges and universities need only to observe the customers they serve to predict the impact a new trend will have on the enterprise. The advent of the Internet, personal computers, PDAs (personal digital assistants), and electronic appliances has revolutionized the way in which we view the world—how we access information, how we learn, how we conduct business, how we communicate, how we are entertained, and even how we initiate and maintain relationships. This "sea change" has touched every corner of the modern world, more rapidly and probably more profoundly than any other advance in technology.

Students have been among the first to embrace technological advances. After all, many of them have grown up digital. Having cut their "techno teeth" on Nintendo or Game Boys, Generation Y is undaunted by new technology. Members of this group have learned mostly by trial and error rather than by consulting user manuals and training videos. Penmanship, spelling, and manual computation skills are less necessary for them than they were for the preceding generation. They know the meaning of acronyms such as "DVD," "CD-ROM," "PDF," "GIF," "HTML," and "URL." They can access seemingly infinite volumes of information on the Web, easily manipulate data, produce attractive color reports complete with photos and graphics, and even create their own Web pages. Yet they have never known the names of more than four presidents, gone to a drive-in movie, owned an 8-track tape or a "45"; nor have most of them operated a television with fewer than a hundred channels that could be "surfed remotely." This is the digital-quality, surround-sound, high-speed Internet access generation.

Student Expectations in the Dot-Com World

In a world of automated teller machines, next-day delivery, and 24/7 service, is there any wonder students expect instant fulfillment of their needs and wants (Kidwell, Mattie, & Sousa, 2000)? We live in a culture of immediacy. To be successful, organizations must have speed itself as a strategic thrust (Schnaars, 1998). Institutions that offer automated responses to e-mail and Web inquiries, immediate receipt of requested materials in a PDF file or via a hypertext link, on-site or online transfer credit statements and degree audits, connection with an advisor upon admission, etc. have a competitive advantage—at least for a while. However, competitive advantage, if left unattended, soon languishes.

Students have an increasingly low tolerance for bureaucracy and delays. If they call a toll-free number at three A.M., they fully expect someone to be at the other end of the line, ready to serve them (Frand, 2000). Unfamiliar with a registration process that used to require hours of waiting in line, students today want to go from "in line to online." "Accustomed to service on demand, they expect choice—and convenience" (Burnett & Pantel, 1999). Failure to provide such service both consistently and reliably results in student dissatisfaction. "Not unlike customers in the private sector, our students often voice their dissatisfaction with their feet or, in the era of distance learning, with their mouse. They simply leave" (Black, 1999).

Much to the dismay of enrollment managers, students' reaction to expanded real-time information and services is not "Wow!" but rather "What took so long?" (Frand, 2000). Few institutions have the financial or information technology resources to keep current with the latest technology, yet students expect them to do so. Within the next few years, the convergence of data, voice, and video over the Internet—coupled with residential broadband, wireless connectivity, and the natural integration of today's cellular phone, Palm Pilot, and lightweight laptop—will connect students to the Internet and support multimedia communications anywhere on the planet (Weigel, 2000; Frand, 2000). How will our institutions respond? Realistically, if we are not already planning for the aforementioned technology breakthroughs, we are unlikely to be industry leaders when the breakthroughs occur. We then must ask, "How will our prospective and currently enrolled students respond if we are not the industry leaders?" and "How much technology can we afford?"

The barriers of time, space, and place no longer exist. Consequently, many of today's learners are seeking convenience and customization—benefits for which they or their employers are willing to pay a premium. It is estimated that by 2003, 60 percent of students will access course content electronically (The Gartner Group, 1998). Of course, one should not assume that all of these e-learners will be nontraditional undergraduate or graduate students learning at some distance from a physical campus. For example, a recent study of the sixteen campuses in the University of North Carolina system found that 21 percent of distance learning courses (almost exclusively Web-based courses) were taken by traditional, residential undergraduates (Barnes, 2000). As many dot-com businesses have learned, most customers want the option of interacting face-to-face with other people—hence the rise of the "click and mortar" phenomenon. (Pottruck & Pearce, 2000).

According to Robert A. Wallhaus (2000), students increasingly will be associated concurrently with multiple providers and modes of instruction rather than being affiliated with a single institution or learning modality. "Educational services will become unbundled, with different providers carrying out various functions: curricular development, delivery of instructional modules, provision of student services, student evaluation, and awarding of credentials. Students will assume greater control over their educational experiences…. Program completion will be defined increasingly by the knowledge gained and skills mastered rather than credit hours earned." Students will be less likely to follow a lockstep path to degree completion; rather, asynchronous learning opportunities will shift the focus toward student goals that are not always synonymous with degree completion.

The Digital Divide

There has been much discussion of the "haves" and "have nots" in the digital era. Many would argue, however, that the digital divide is fundamentally no different from the radio divide or the automobile divide of the past. "It would be extraordinary to expect to see a new technology arrive for all people, in all situations across the board, simultaneously" (Singleton & Mast, 2000).

There is some evidence that the digital divide is narrowing. "From 1994 to 1998, computer ownership by whites increased 72 percent while ownership by blacks increased 125 percent. From 1994 to 1997, computer ownership by Hispanics and African Americans increased 117 percent in households with less than $15,000 in income" (Singleton & Mast, 2000). Similarly, in the enrollment management arena, a study completed by the Art & Science Group (2000) indicated that the rate of online applicants compared to the rate of enrolled students by race was essentially the same; only Caucasians and Hispanics applied online at slightly lower rates than they enrolled.

Concerned about access and diversity, colleges and universities have made valiant efforts to bridge whatever gaps may exist. The proliferation of on-campus computer labs, wired and wireless residence halls and classrooms, and computer purchase programs is symbolic of the commitment higher education has made to ensure a level playing field for all students. As enrollment managers, we, too, should be proactive in identifying ways to remove digital barriers and supply digital opportunities to all.

Elements of the E-Revolution in Enrollment Management

Electronic enrollment management has at least six components: establishing a presence, interactivity, integration, mass customization, the unbundling of services and programs, and a mix of competition and cooperation (or, as David Kalsbeek calls it in Chapter 10, "co-opetition"). These components should not be considered linearly, nor should it be assumed that they necessarily are synergistic. In fact, at times, some of these elements work in opposition to one another (e.g., integration and unbundling). Though no institution has to engage in all six components simultaneously, it is imperative that all six be considered as part of an institution's strategic plan.

ESTABLISHING A PRESENCE

"Having a presence" in the digital world refers primarily to the World Wide Web. Although almost every postsecondary institution has a Web site, most of the sites are ineffective. First, having a presence is contingent upon people knowing you exist. Cyberspace can be a huge black hole, difficult to navigate through unless the destination is known or the path is clearly marked. This is a problem primarily for lesser-known institutions that have not aggressively explored ways to direct visitors to their Web sites. To ensure substantial and desirable traffic, seek to establish links to user-logical sites, both non-profit (e.g., local community colleges, the chamber of commerce, the state department of instruction) and commercial (e.g., Peterson's, The College Board, Embark.com, GraduateSchool.com). Next, test the effectiveness of your institution's name recognition using search engines like Yahoo, Excite, and Alta Vista. When the name (abbreviated or full) of your institution is entered, what is the result? Finally, as a precaution, register your domain name. This will prevent would-be competitors from damaging your image or claiming the rights to your brand name on the Internet.

Second, a poor presence may be worse than not having a presence at all. Compare your institution's Web site development with that of its recruitment publications, in terms of dollars invested, staff time expended, comprehensiveness of the approval process, quality controls, the process of finding just the right wording, and finessing the design. For most institutions, the investment in a Web presence pales by comparison. Considering the viewership of publications versus Web sites, is this imbalance justified? How important is our Web presence to shaping institutional image, providing information for decision making, and directing prospects, applicants, and visitors to our schools?

The time for an amateurish approach to Web design is long past. Our users are much too savvy to not recognize a Web site that has evolved into a patchwork of ideas loosely stitched together by a revolving cast of student workers, graduate assistants, and untrained staff. Web development and maintenance must become an integral part of how we do business. It should be a prominent piece of our enrollment management plan and an ongoing budgeted item. A specialist who understands Web design, information architecture, marketing concepts, the target audience, and the institution should be employed and paid top wages. Clearly stated marketing objectives should be written for the home page, as well as for secondary and tertiary pages. Rather than trying to be all things to all people, differentiate among target groups and create segmented pathways that will provide the unique experience users desire. Finally, anticipate user needs.

Unfortunately, most Web pages are designed around existing organizational structures. But take note: Students do not care how we are organized. They simply want information presented in a concise, intuitive fashion. Design information around user processes, and remove unnecessary organizational silos. For example, place links to all institutional forms on a single page organized by purpose (e.g., apply for graduation, request a transcript, change majors, reserve housing) so that students can download a PDF file or submit a form electronically without ever having to go to the office in question (assuming they know which office has the form they need). This simple example, if executed well, will provide tremendous convenience for the student, reduce student run-around, and save valuable staff time. Indeed, the Web allows us to organize our world in a way that makes sense to our students.

Consistency of message, design, and navigation are woefully absent from most college and university Web sites, particularly at the departmental level and below. Why is this important? Visit the corporate Web site of industry giants such as Coca-Cola or Lands' End. No matter how far you drill down, the look, feel, and message remain the same: You know you are still at the same site, and you know what image the company is striving to convey. And ultimately, you are more likely to purchase their products and return to their sites. So how do you create consistency throughout your institution's Web site?

Some academic and administrative departments are vested heavily in their Web sites while others have not updated their sites in years. Begin with those that are less vested. Offer them something they do not already have: a high-quality, professionally designed site that will be maintained continuously. Design time can be reduced significantly by creating a design template that is sufficiently adaptable to represent the uniqueness of an academic program or administrative service. Free, downloadable software is available on the Internet to run checks for dead links, a common problem on pages that are not reviewed regularly. Statistical packages can be used not just to record the number of visitors to the site but also to identify common jump-off points, thereby revealing weaknesses in the current site design. Once you have a few success stories, seek out others whom you can convince to convert to the new and improved Web design.

Your Web development should follow a set of guidelines similar to a publications graphics standards manual (e.g., appropriate use of the school logo, a common search engine, a link back to the home page, a uniform listing of contact information, consistent use of a prescribed title bar or side bar). The importance of adhering to these guidelines should be communicated from the top of the organization. Compliance should be rewarded with technical support and infrastructure.

INTERACTIVITY

Having a static Web presence is a start, but the most effective Web sites engage the user. They are dynamic. On dynamic Web pages, the information is refreshed constantly. Tools such as automated degree audits, change of major scenarios, and student loan estimators provide useful information for decision making. Similarly, business services such as online applications, registration, credit card payment, and reservations add convenience to the student's experience. But possibly the most valuable interaction is between a student and his or her faculty member. Threaded class discussions, the exchange of e-mail, links to course-related materials, the electronic transmission of homework assignments, prompt feedback on coursework, etc. all add value to the learning experience.

Through meaningful interactivity, the institution has an opportunity to cultivate a relationship with the student that, over time, will enhance brand loyalty. Robert Kvavik (2000) calls it a "cradle to endowment" relationship via a virtual environment. To be meaningful, the interactivity must be relevant to the individual. One of the best devices for achieving personal relevance is the portal. A *portal* is a place where useful information is gathered into a single, one-stop Web page and preferences can be set based on the interests of the individual (Looney & Lyman, 2000). For the institution, a portal leverages investments in enterprise systems, data warehouses, re-engineered processes, and staff expertise (Katz, 2000).

Portals are familiar creatures. "Eighty-nine percent of the estimated 58 million people using the Web in the United States use some type of portal" (Looney & Lyman, 2000). There are three kinds of portals:

Community portals are created around a specific topic and are of two types: horizontal, for people who share a common circumstance or attribute, and vertical, for people who share a common interest (Siegel, 1999).

Vertical portals are generally structured around a specialized business theme. For example, "Blackboard has integrated a portal around its course-management service, and PeopleSoft is offering a portal front-end for its enterprise resource planning (ERP) system" (Looney & Lyman, 2000).

Enterprise portals (sometimes called information portals) increase employee efficiency and productivity by providing centralized access to needed data (Looney & Lyman, 2000).

Student portals are effective communication and relationship management tools only when they are used with some frequency. To have "returning power" (also called "sticky"), student portals must possess five attributes:

- A reliable e-mail system.
- The capability to segment to an "n" of one.
- Information that is relevant and timely.
- Valuable business tools.
- Regular use by faculty with their classes.

Portals supply a mechanism for both "push" and "pull" communications. Students are *pulled* into a portal to view information they previously have indicated interest in (e.g., events sponsored by the English department, the school's basketball scores, the campus newspaper); to check out information (e.g., registration deadlines, inclement weather reports, breaking campus news) posted to everyone on the portal; or to conduct business with the university (e.g., retrieve final grades, pay a parking fine, reserve tickets for an upcoming concert, visit the online library). *Pushed* messages can be broadcast or targeted to a specific population (e.g., informing everyone who has not paid that tomorrow at 5:00 P.M. is the deadline, congratulating dean's and president's list students, sending an electronic birthday card).

Finally, portals can and should be used to build community. Both vertical and horizontal communities draw people together around something they have in common. Some examples include a community for single parents, one for adult students with "math phobia," one for commuters, and one for international students. Regardless of the topic or the target population, interacting with people who have something in common often results in a feeling of support, friendship, and bonding, with individuals as well as with the institution.

INTEGRATION

The integration of information and business processes is essential to improving enrollment services. Integration should occur with internal processes and information as well as with select external entities. Colleges and universities that have engaged heavily in integration typically offer courses and student services online, provide online alumni and development services, and have transformed the procurement process (Kidwell, Mattie, & Sousa, 2000).

The integration of institutional forms into a single Web page described earlier in this chapter is an example of *internal integration*. Another example is the collection of all initial enrollment processes—requesting information, arranging a campus visit, applying for admission, applying for financial aid, meeting an online advisor, reserving housing, meeting a roommate, registering for orientation, taking online placement tests, reviewing the schedule of courses, registering for classes, paying for college, purchasing books online, reserving parking, sending a photograph for the student ID electronically, and requesting a map highlighting the buildings where the student's classes are located—into one virtual place. Though these steps are not necessarily linear or even required of all students, consolidating them and presenting a recommended timeline for completion of each step simplifies a long and often foreign process for the user. To be most effective, users should be allowed to return to the portal multiple times during the enrollment process, having been provided the assurance that the information they entered during their last visit will remain intact and password protected. Completed steps in the process should be highlighted for ease of identification. Ideally, a unique "enrollment steps" portal would be created for each type of entering student (e.g., undergraduate, graduate, distant learner, readmit, non-degree seeking, international). By segmenting the various admission types at your institution, you provide a portal designed to match the needs of each student.

Integration with external entities could be desirable in the example cited above. For example, a partnership with an online textbook company such as Amazon.com or Barnes & Noble might provide a valuable service to students while producing a new revenue stream for the institution. Perhaps your institution lacks the resources or the expertise to develop a portal in house. If this is the case, you may want to partner with a company such as Campus Pipeline, MyBytes.com, Jenzabar.com, or Mascot Network. You also may need assistance from a third-party vendor such as Embark, CollegeNet, or XAP to offer an online admissions application. Regardless of the need for integration with an external entity, determine first what you are attempting to accomplish for your students, and then identify a vendor that best fits your service objective and that meshes well with existing systems.

MASS CUSTOMIZATION

Mass customization (also called "one-to-one marketing" or "one-to-one customer relations") begins with knowing the students your institution serves or potentially could serve. "Every business has new, existing, and preferred customers. For some reason, many companies fail to grasp the importance of addressing those groups differently on-line" (Siegel, 1999). While some may argue that higher education is not a business per se, the fact that we have "new, existing, and preferred" students who want to be treated as individuals is indisputable. So how do we differentiate among our students?

The corporate model suggests that differentiation should be accomplished first by ranking a customer's value to the organization and then by segmenting customers by their needs (Peppers, Rogers, & Dorf, 1999). In the higher education model, most institutions have elected to define student groups differently depending on a process or stage in the enrollment funnel. (See Figure 13.1, which depicts common student segments and their related process or stage.)

Figure 13.1: Student Differentiation

Stage or Process	Student Differentiation
Prospect qualification	Level of interest in the school Academic ability
Predictive modeling	Level of interest in the school Academic ability Academic background Demographic variables Original source of inquiry Frequency and type of interactions with the school
Financial aid leveraging	Ability to pay (financial need) Willingness to pay (academic ability)
Marketing	Student motivators and barriers to enrolling Values, attitudes, and beliefs Geography Demography Geodemography Areas of interest (curricular and extra-curricular)
Admission	Early admit Regular admit Provisional admit Rejected student Readmit
Student retention	Prone to complete a degree Predisposed to transfer (not at 1st choice institution) At-risk academically (those needing support as well as those who are not challenged) At-risk socially At-risk demographically At-risk geographically At-risk financially

While many institutions struggle to differentiate students at the granular level described in Figure 13.1, the really "smart" colleges and universities drill down to the molecular level. It is at this level that customization is the most powerful. To segment to an "n" of one requires a database that enables collection and storage of useful information during every interaction with a prospective or current student. Whenever possible, drive more and more of your interactions with students into cost-effective media such as Web-based content, forms, and surveys (Peppers, Rogers, & Dorf, 1999). Once collected, the data can be

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filtered to ferret out information for recruitment and retention strategies or to offer a specific course or service to meet an individual's expressed need.

Assume, for illustration purposes, that your institution wants to grow enrollments, but only in programs where capacity exists (e.g., seats are available in classes, faculty loads are relatively light). One of the programs with available capacity is accounting. From the market intelligence you have gathered, you know that more than half of your potential market is full-time, working adults. Package an evening degree completion program targeted at this cohort. Provide parking adjacent to the building where classes will meet, and ensure that modest food services are available. Advisors and student service generalists should be available on designated evenings and via e-mail.

With the program and service components in place, market the evening option by pushing tailored e-mail messages to members of the cohort. Messages might contain links to a Web portal developed specifically for the accounting evening degree program, the Office of Adult and Evening Services, accounting faculty Web site(s), the course schedule, and the registration system. In addition, your messages might include attachments (e.g., a one-pager highlighting the accounting program, excerpts from the catalog with degree requirements and course descriptions for accounting).

The evening accounting program Web portal might contain testimonials from successful accounting graduates who managed to complete the program while continuing to be employed full time. Find out whether these featured graduates would be amenable to responding to specific questions prospects could e-mail to them. Monitoring e-mail transactions, with the permission of the alumnus, will aid quality control and ensure a prompt response.

Other features of this Web portal might include:

- A degree audit tool for determining coursework needed to complete the degree and then mapping those requirements to an academic plan of study.
- Access to an online generalist and advisor to answer a variety of academic and process questions.
- The "steps to enrolling" specific to this population.
- Links to course Web pages.
- Links to study packets, library resources, and software designed specifically for accounting majors.

- Links to career and internship opportunities.
- Links to professional accounting organizations.
- Test preparation tools for the CPA exam.
- An online community for working accounting majors.
- Course-specific discussion groups.
- Previews of Web-based course offerings.

Of course, the above example focuses on known prospects. Similar strategies combined with outreach activities such as newspaper and radio advertisements, visits to two-year institutions with accounting and college transfer programs, communication with local accounting firms, and banners on accounting-related Web sites can yield new prospects. In any outreach activity, the primary objective is to drive potential prospects to the Web portal where they can complete an online inquiry form or call for additional information. Whether they complete the Web inquiry form or call, use this opportunity to capture information about their interests as well as their motivators and barriers to enrolling.

For this population, your most formidable competitor may not be another institution; instead, it may be life priorities. If this is the case, remember that the most effective one-to-one interaction is still face-to-face communication. It may be prudent for enrollment managers to reconsider the traditional territory management model in favor of a case management approach that assigns prospective students to staff based on needs rather than geography.

UNBUNDLING SERVICES AND PROGRAMS

In the e-learning domain, institutions have the option of unbundling services and programs, retaining only those components of the value chain where competitive advantage exists (Kidwell, Mattie, & Sousa, 2000). The trend of unbundling and the related outsourcing of services to a network of business partners (described in Chapter Ten) has given rise to a cottage industry of technology providers (e.g., course delivery and management, online content distributors, learning portal providers, Web designers, technology consultants). As rapidly as technology changes, it is unlikely that most institutions ever will be completely self-sufficient. Outsourcing technology can be an economically sound business strategy that actually increases performance and efficiency. Further, outsourcing allows the enrollment management organization to redirect staff time toward things that matter most in the students' value chain.

The seamless nature of the Web makes it ripe for merging services and programs under a single institutional banner. In Chapter 1, for example, Stan Henderson refers to the blurring of services across organizational boundaries. Using the Web, boundaries can be blurred beyond the walls of the university; multiple providers can be integrated in a way that is invisible to the student.

COMPETITION AND COOPERATION

When instruction is available any time and any place, students have virtually unlimited options. More learner-centered choices result in greater competition and specialization across a wider range of educational providers, as well as a greater need for providers to cooperate and share resources (Wallhaus, 2000). Increasingly, colleges and universities will find themselves competing across industries (e.g., publishers, software vendors, entertainment providers) and geography (e.g., the University of Phoenix, UNEXT.com, Harcourt Direct Learning, the Open University, and a multitude of accredited corporate universities) (Kidwell, Mattie, & Sousa, 2000). Students' educational needs and convenience will drive competition in the virtual world.

Few schools have the capital to compete head-to-head with Microsoft University or the Stephen Spielbergs of the world, both of which can attract the best faculty on the planet, deliver content using state-of-the-art technology, and market to the masses with relative ease. So how do we compete? Well, we don't. But we can look for niches to exploit and partners with whom we can build high-quality programs. By packaging the best of what multiple institutions have to offer along with services provided by those institutions (or a third-party vendor), a "killer" degree program can penetrate and eventually dominate a market.

E-Enrollment Management Strategies

The benefits of electronic enrollment management strategies are twofold: They typically are cost-effective and customizable. This combination yields a robust return on investment. Electronic strategies provide an opportunity for vertical marketing, one-to-one recruitment, customized retention initiatives, and high-tech/high-touch services.

VERTICAL MARKETING

The marketing funnel depicted in Figure 13.2 demonstrates the various levels of marketing and their relative effectiveness in influencing student decisions. Ironically, the most costly approach to marketing is also the least effective. Though some blend of all three levels usually is desirable, it is prudent to invest the bulk of your resources and time in vertical marketing, where the cost/benefit ratio is the most favorable. You should measure the return on investment at all levels within your marketing scheme often, and shift investments in accordance with your findings.

Broadcast marketing, also called mass marketing, includes advertising (e.g., newspaper, radio, television, billboards, Web site banners, publications) and mass mailings (e.g., student search mailings, course schedule mailings). For broadcast marketing—particularly advertising—to be effective, sufficient frequency is essential. Extensive saturation of a market with a consistent, well-developed message can be effective in shaping image or increasing visibility, though it is difficult to link broadcast marketing efforts directly to enrollment results. Saturation of a market over an extended period of time is expensive and not for the faint-hearted. Lacking ample resources, colleges and universities may be better served by investing limited marketing dollars in more productive activities. Sporadic "hit or miss" advertising is rarely worth the investment, with the possible exception of advertising specific events or deadlines (e.g., application or registration).

Figure 13.2

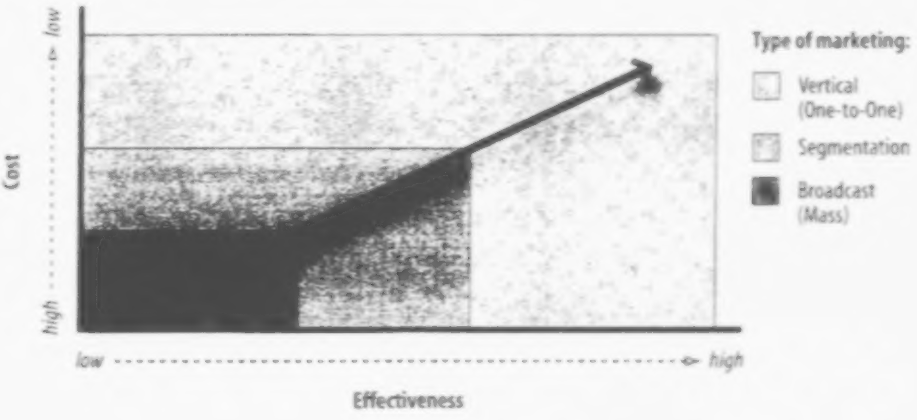

Figure 13.3: Vertical Marketing Tools and Uses

Marketing Tools	Possible Uses
Web portal	A portal designed specifically for prospective students or current students based on preferences they have set. The portal typically consists of pertinent information, decision-making tools, business functions, and learning tools.
E-mail	E-mail messages should be tailored to the individual with relevant attachments and links. Photographs can add visual impact to the e-mail message and soon audio and video will be commonplace.
Web-mail	Web-mail messages can be tailored to groups or individuals with graphics and Web links. For example, newsletters to current students by major or area of interest can be customized and sent at no cost. In addition to providing valuable information, the Web newsletter is designed to drive traffic to the Web site.
Digital publications	A growing number of printing companies have digital printing capability. For example, your viewbook can be personalized to a female soccer player from New Jersey. Her name can be used throughout the publication, photos of women' s soccer can be strategically inserted, and testimonials from other New Jersey students can be placed in the brochure text. Another, less expensive and more immediate option, is to preprint brochure shells that are laser printer-ready. Using basic mail merge software you can personalize the brochure for everyone receiving the mailing.
Letters	Mail merge allows for optimal personalization. "Dear Student" letters are not read and should never be sent even in informational communications with current students. Highlighted information and the "P.S." are the most often read parts of a letter, so put the most important information in bold, and repeat it in the "P.S."
Telephone	Telemarketing or telecounseling can be used to deliver targeted messages, gather information, evaluate recruitment or marketing strategies, qualify prospects and applicants, promote an event, encourage a specific action be taken, or build relationships. Regarding the latter, relationships are developed when prospects receive multiple calls from the same caller, preferably a student caller with whom they share something in common. Of course, calls are only effective when they are relevant and timely. providing meaningful information to the prospect when they need it.
Text message pagers	A small private college in California provided free message pagers to their confirmed students in May prior to their enrollment in the fall. Periodically, the college sent text messages to the students prompting them to register for orientation, introducing them to their advisor, directing them to a Web site where they could find out about their roommate, reminding what to bring when they arrive on campus, etc.

Segmentation of external and internal student markets by age, distance from campus, potential scholarship recipients, math majors, freshmen, transfers, commuter status, residential status, minority status, participation in interscholastic athletics, enrollment in high-risk courses, enrollment in honors courses, etc. allows the marketer to construct messages and interactions that are somewhat surgical. One inherent weakness of segmentation is that it involves a degree of stereotyping. Consequently, even though segmentation is much more precise than the scattershot approach of broadcast marketing, it

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is not exact. In a target population of 100 people assumed to have similar characteristics, interests, and needs, many will not "fit the mold"; yet those who do are more likely to be influenced by a message tailored to their circumstance than by a generic message.

Vertical marketing, referred to above as one-to-one marketing, is customized to the individual. By personalizing the message and interaction, the relevance to the student is increased dramatically. The greater the relevance, the greater the influence on the student's decision to enroll or to persist. Enrollment behavior is an important outcome, but the ultimate goal of any marketing effort is to increase customer loyalty. Loyal students do more for institutional image and recruiting efforts than any institutionally initiated marketing or recruitment strategy ever could. Institutional loyalty is enhanced when we are intentional about cultivating relationships. Relationships with students are much like any other relationships: They are built on trust, mutual respect, and caring interactions, and they take time to establish. Consequently, a one-shot approach is ineffective—as is aggressive recruitment followed by little or no cultivation once the student enrolls. The "courtship" (see Chapter Three) must be ongoing. Utilizing vertical marketing techniques, we should continuously assess the needs of our students and communicate with them as unique individuals.

Tools for vertical marketing and a brief example of how the tools might be used are displayed in Figure 13.3.

ONE-TO-ONE RECRUITMENT

The concepts of vertical marketing and one-to-one recruitment overlap, and at times it is difficult to distinguish between the two. In fact, forms of one-to-one recruitment also could be classified as vertical marketing. Though particularly difficult to identify in a specific initiative, a few subtle differences do exist. First, the concept of one-to-one recruitment focuses solely on prospective students whereas vertical marketing is inclusive of all the institution's constituents (e.g., prospective students, current students, parents, alumni, donors, guidance counselors, faculty). Second, vertical marketing is inclusive of a broader spectrum of clientele because it is primarily about image enhancement. The thrust of vertical marketing is the communication of specific marketing messages designed to shape image and influence a wide range of decisions. Finally, one-to-one recruitment is confined to the front end of the enrollment funnel whereas vertical marketing begins with the first contact prospective students have with the school and continues through enrollment into their lives after graduation.

The best way to understand these distinctions is to consider examples of one-to-one recruitment. A technology-oriented approach to one-to-one recruitment is featured in the following case study written by James L. Maraviglia, executive director of admissions at Cal Poly, San Luis Obispo.

CASE STUDY ON CAL POLY, SAN LUIS OBISPO

The decade of the 1990s presented a unique set of problems and challenges for admission and recruitment operations nationwide. It was a time of shrinking budgets offset by demands for improved and expanded services. Facing keen competition to attract and enroll highly qualified, diverse students, Cal Poly, San Luis Obispo mobilized to meet these challenges by reorganizing the admission and outreach units into our new admission and recruitment unit.

We enhanced the utilization of technology to support the recruitment, application processing, and admission efforts of the campus from the consumer's point of view and redesigned our efforts to support this concept. The university eliminated a number of large mass mailings as well as the need for extra staffing by partnering to produce *e-coms*, an integrated, customizable software package for electronic communications. Furthermore, Cal Poly fully embraced and prospered from online applications; the institution is making good progress toward its goal of receiving 100 percent of applications online.

Goals/Objectives

We decided to utilize various technologies to link the campus community to prospective students throughout the recruitment and admission process. The university already had in place a number of successful outreach and recruitment activities; what it did not have was the link necessary to provide highly sophisticated interaction between the campus community and prospective students.

Our primary objectives were simple; we wanted to involve the entire campus—including the president, deans, department chairs, student clubs, and alumni association—in the following efforts:

- Developing our prospect pools.
- Communicating with applicants as they progressed through a competitive admission process.
- Convincing candidates that our product (more so than those of our competitors) was of particular benefit.
- Enticing newly admitted students to enroll.
- Supporting advising, orientation, and registration as part of the new student experience.

Available Technology

Realizing that our student information system (SIS) was key to the success of this project, we decided to utilize our SIS to store, drive, and analyze the various efforts we were developing as part of our admission recruitment plan. We also realized that our LAN (local area network) provided the capability of developing an integrated system that would enable the entire campus community to communicate with prospective students in a highly personalized and cost-effective way. We decided to create a campus hub that capitalized on existing and new technology to drive all our campus communication efforts, focusing directly on the students we wanted to apply and eventually enroll.

We positioned ourselves to be able to develop and implement many new software technologies: electronic viewbooks, electronic applications (Mentor), the World Wide Web, and CD-ROM. The key to successfully implementing these new technologies was the initial development of the campus communication hub (which we named our "RESPONSE" system) along with the development of e-coms (our Web-based communication hub and event scheduler which we coupled with CSUMentor™, our electronic student planner and application). Each technology became a building block for the series of tools we were developing to link our campus to our audience, and each building block became a staple of our day-to-day operations. Brief descriptions of each of these building blocks follows.

RESPONSE

The RESPONSE hub provides Cal Poly with the tools to involve the entire campus in the recruitment and enrollment of new students and to measure the effectiveness of the campus's recruitment-related activities. RESPONSE offers the following online capabilities:

- An integrated system that streamlines the flow of written communications directly to the students Cal Poly is interested in enrolling.
- Readily accessible tools to assess recruitment activities.
- The ability for all campus departments to communicate with prospective students and applicants in a highly personalized fashion with minimal staff support. Each communication piece is customized and generated through this automated system.
- Timely communication of messages to applicants matriculating through the application cycle. Students are kept informed of missing documents and incomplete requirements, as well as continually provided information on diagnostic testing requirements, advising, and orientation and registration processes, all in a personalized fashion.

E-coms

We developed our newest innovation in enrollment communications and management software, e-coms, to make college admissions run more efficiently by managing and filtering prospective student databases as well as maintaining correspondence. E-coms cut costs, improved communication with students, and fostered closer relationships with prospects.

We already had enticed thousands of high school students to communicate with the university through virtual tours on collegeview.com, easily accessible online applications, and our Web site. E-coms technology proved the next logical step toward a complete online information session between the university and the student. At Cal Poly, we have found that students are more likely to respond to our invitations when delivered via e-mail rather than "snail mail." By shifting to more e-mail communications and using e-coms to manage the flow, we anticipate reducing our annual direct mailing costs by half.

With e-coms, Cal Poly admissions officers can automatically import mass lists of prospective student names from all sources. The university receives the names of approximately 150,000 prospects a year from more than 300 sources. Given such a multitude of touch points and the increased use of e-mail, the campus had to devise a better system for tracking and communicating with prospects in a timely and professional manner.

E-coms automates many of the communication functions that define the day-to-day operations of admissions offices. E-coms enables the admissions office to create customized student interest forms, surveys, event response forms, and VIP pages for our Web site and automatically imports and filters the names and information it receives. It can handle hundreds of fields of information per student.

Organizing recruitment events at the university, such as an open house at our College of Agriculture, is relatively simple using e-coms. For this event, we began by using the software to export a pool of the students specifically interested in or open to the study of agriculture. Then, via e-coms, we e-mailed personalized invitations (in mass) to these individuals. Next, we used e-coms to create a custom, VIP Web page where interested students could RSVP. E-coms compiled the list of registrants, created a list of all attendees, and merged the follow-up letters.

CSUMentor™

We currently are working with eighth graders to establish e-mail accounts for them through our CSUMentor™ planner. We can look up students in the e-coms database and easily recommend at any point in time which faculty they should consult with, based on their identified interests. E-coms will enable faculty to find out how many times a student has communicated with the university, how many events he or she has attended, and whether a personal visit is recommended.

We can make a definite distinction among the truly interested, the persuadable, and the non-interested student. We can communicate with these students more rapidly than before, and we can initiate our relationship long before the students actually begin the college application—or even the college search—process.

Since introducing new technologies in the early 1990s, we have seen a 77 percent increase in the number of undergraduate applicants, with steady increases not only in the quality of the applicant pool but also in its overall social, economic, and geographic diversity. Evidence of student acceptance of new technologies includes our processing of more than 80,000 electronic applications in the last seven years and the critical place of our CSUMentor™ application in the university's admission process. We anticipate that 90 percent of next year's applicants will file electronically.

Significant productivity gains have resulted from our now fully automated electronic admission, evaluation, and selection process. All applicants submit an electronic application portfolio through CSUMentor™ that includes an electronic record of all courses attempted, grades earned, test scores, and courses in progress, as well as the number of hours worked and/or number of hours of participation in extracurricular activities. These data are automatically mapped to the campus's student information system and multi-valued criteria for admission. The database supports the 32 admission models developed by the faculty to automatically score, rank, and select candidates based on projected space and also provides an automated CSU evaluation of each candidate's credentials for admission.

The Bottom Line

If we took as our base the number of staff that would be required to support our current recruitment and admission endeavor in a "traditional" (non-technology-based) way, we would require 40 more positions than we currently staff. By utilizing technology, Cal Poly boasts a combined salary and benefit savings of more than $1.45 million dollars per year in carrying out our recruitment and admission charge.

Tools such as CSUMentor™, e-coms, and RESPONSE have enabled us to redefine the duties and responsibilities of our staff so they can interact with audiences in ways that they understand and to which they respond. More important, we have been able to reposition our staff to support an integrated communications approach that focuses on a comprehensive, coordinated, and institution-wide recruitment campaign.

CUSTOMIZED RETENTION INITIATIVES

Most college campuses' retention efforts tend to be generic and somewhat disjointed. Again, the principle of relevance correlates strongly to effectiveness. If all symptoms of attrition are treated with the same solution, many students will "fall through the cracks" unnecessarily. An accurate and early diagnosis can lead to a solution prescribed for an individual rather than for a cohort. With such pinpoint accuracy, the odds of retaining a dropout-prone student are greatly enhanced—particularly if intervention is made early.

The USA Group Noel-Levitz, Inc. has developed the Retention Management System™ to assist institutions in targeting academic and affective indicators that enhance a student's likelihood of dropping out, even before the student enrolls. By having newly accepted students complete the 194-item College Student Inventory prior to the beginning of their first term, advisors and administrators can access data that reveal each student's needs and concerns; they then can place them in rank order according to the likelihood that each student will drop out. This information can be used as a foundation for building relationships with students, providing high-quality advising, and recommending appropriate support services and intervention strategies (USA Group Noel-Levitz, Inc., 2000). Some institutions have developed homegrown assessment instruments for the same purpose. Typically, a Web survey is used to collect data and a student information system is used to store the data and track enrollment behavior.

Of course, early intervention is not the only way to improve student retention. A few institutions utilize technology to ease students' transition into college and to begin the bonding process early. The University of Dayton, for example, has created "virtual dorms" where freshmen can chat with other new students; create and post personal profiles; or search other students' profiles by name, hometown, or even keywords such as "favorite bands." Communication between roommates is private, but students can open the virtual door to the hallway and meet other students who will live on their floor (Givens, 2000).

Merrimack College recently joined the ranks of a growing number of institutions with a virtual orientation. Merrimack partnered with Mascot Network to build an orientation site where students can view a photo gallery or a new student directory, participate in group chat sessions, and receive academic counseling. The site also allows for user-driven content (Givens, 2000).

Franklin University, a school that serves "more than 5,000 adult students, 85 percent of whom work full time, assigns student service associates to provide a single point of contact for all enrollees" (Peppers, Rogers, & Dorf, 1999). Utilizing technology and personal interaction to assist with the University's enrollment processes (e.g., credit transfer, academic advising, registration, financial aid, parking), each student service associate serves as a liaison for a cohort of entering students. Student service associates have been empowered to interpret institutional policies to meet the needs of the student.

For the most part, the retention strategies described above are frontloaded. Student retention typically remains an issue after the first year of college—hence, the phenomena commonly referred to as the "sophomore slump," "academic boat people," and "students in transition." It is prudent to think about retention holistically—even to the point of looking at our graduates as potential lifelong learners at our institutions.

With this perspective in mind, the question becomes "How do we effectively cultivate relationships with our students and alumni and thus increase brand loyalty?" Many answers can be found in the vertical marketing section of this chapter. However, one final point needs to be made: You must develop a detailed "cultivation plan" for continuing students. The plan should describe cultivation interactions, target populations, tailored messages, estimated costs, staff responsibilities for implementation, an implementation timeline, and a method of measuring the effectiveness of each interaction. Technology (e.g., data warehousing, filtering, tracking systems) can be used to help manage this complex plan. It also can be used to personalize the interactions (e.g., tailored e-mail messages, Web portals, Web-chat, 24/7 online assistance).

No new massive organizational structure is required. Instead, it is a matter of rethinking how we do our work, eliminating or reducing strategies that add limited or no real value to our students and replacing them with strategies that are relevant to their needs. Such a paradigm shift requires the thoughtful reallocation of time and money, some changes in job functions, and possibly the investment of new resources.

HIGH-TECH/HIGH-TOUCH SERVICES

A dual emphasis on high-tech and high-touch solutions is vital to improving student satisfaction and loyalty. Students want convenience, personalization, and occasionally a positive interaction with another human being. The limited need for human interaction when completing an institutional business process should not be understated. In fact, as counterintuitive as it may sound, one of our primary service goals should be to become invisible. This does not mean that staff are unavailable to or unapproachable by students. To the contrary, it means that staff are available to spend dedicated, high-quality time with those students who really need to see them; but the majority of students, who can complete basic business transactions and make good decisions on their own, are simply provided the tools they need to do so. These "self-services," as they often are called, should be available 24/7 from anywhere. That is what most students expect.

One-stop shopping has become commonplace on campuses today, and increasingly, schools are supplementing that model with "no-stop shopping"—virtual student services. Commonly included among virtual student services are online admission applications, financial aid applications, scholarship searches, electronic advising or scheduling, registration, bill payment, job searches, access to grades and academic standing, status-checking capability, form access or submission, and volumes of information.

One of the most exciting developments in the area of virtual student services is the "virtual help desk." This concept represents a marriage of the best of high-tech and high-touch student services. A virtual help desk might consist of bundled business services arranged in a logical sequence for the user. It also might include answers to students' most frequently asked questions; all institutional forms; a list of important deadlines; a calendaring tool for arranging appointments with student services offices; a pop-up student guide who can talk through the steps of any enrollment process; decision-making tools, such as GPA calculators and change of major/degree completion simulations; and most important, access to a "personal assistant." (Personal assistants could be student help desk staff or designated staff in student services offices.)

Another personal assistant model would involve the employment of a cadre of part-time staff who could telecommute from home. In this model, personal assistants would be trained as generalists but also would have an area of specialty (expertise in one school or college, for example). They would be assigned admitted students based on their intended major at the time of application. Within a week following the students' admission, they would be contacted via e-mail or phone by their personal assistant. The personal assistant would initiate a pre-advising dialogue. During the initial interaction, the personal assistant would attempt to gain an understanding of each student's interests and career aspirations. Through access to the student information system—and, if available, imaged documents—the personal assistant would begin to create a profile of each student. The profiles would be expanded over time to include insights gained from interactions between the student and the personal assistant as well as data collected from online surveys and assessments the student completed as part of the orientation-preparation process. By the time the student arrives at orientation, he or she will have a tentative schedule completed, all placement tests scored, a detailed student profile for use by his or her advisor, and an established relationship with the personal assistant. Personal assistants also should greet their students when they arrive at orientation.

Once students enroll, their personal assistants remain the same. This continuity is important to provide students a sense of comfort and security as well as to sustain the "momentum" of the personal assistants' learning curve and ensure that they are invested in their students' success. Any time students visit the virtual student help desk, they may ask questions of or interact with their personal assistant or submit a general request that will be randomly assigned to a personal assistant on duty. Students also may click on a "help" button on any student services Web page and receive an immediate response from a personal assistant via a pop-up window that overlays the page the student is working on at the time. Both parties have access to the same Web page and can discuss what they are viewing simultaneously in real time. For example, if a student is viewing the online course schedule and needs assistance selecting appropriate courses, the personal assistant can direct the student to options he or she may want to consider.

The personal assistant model described here is just one example of how to use technology to personalize and, to a degree, humanize the enrollment experience. With the technology that is available today (and that will be in the future), the opportunities for high-tech/high-touch student service solutions are infinite. Regardless of the solution selected, the model for the future is clear. (Figure 13.4 represents the features of the traditional student services model as compared to those of the new model.)

Creating and Sustaining the E-Enterprise

Many ingredients are needed to create and sustain an e-enterprise; not the least of these are a vision for the future, an understanding of technology trends, a strong technical staff, a strategic plan that integrates academic priorities with information technology and enrollment management strategies, adequate resources, a solid performing information technology infrastructure, and leadership support. Though none of these ingredients should be trivialized, the fundamental ingredient remains good data. Without good data, accuracy and reliability are impossible.

In a successful e-enterprise, the quality of the data becomes the organization's holy grail. Everyone in the organization who inputs data should understand how important it is to maintain accurate information. The database must be protected from contamination and nurtured as one would a garden. Data should be entered into the system carefully, with checks along the way for duplicate records. Periodically, databases need to be refreshed, because students are not static entities. They move; they get married; they change their majors; they change their minds (Peppers, Rogers, & Dorf, 1999).

Databases should be used to collect personal information and to record transactions with the college or university, as well as interactions between the student and the school. This information should be available to faculty and staff who will interact with the students. As suggested in Chapter Twelve, the data available should be relevant to the individual faculty or staff member's unique interactions with the students (e.g., advisors have access to information about their advisees). In a sense, less information is better than more if the information can be distilled to exactly what the user needs for a productive interaction with the student (Peppers, Rogers, & Dorf, 1999). Information portals provide an excellent vehicle for supplying access to relevant data in a user friendly, point-and-click environment.

Figure 13.4: Student Service Models

Traditional Model	New Model
Functional silos	Cross-functional teams
Segregated departments and processes	Integrated systems, organization, and processes
Lack of communication across departments	Cross-trained teams
Lines in multiple offices	"One or none" philosophy
Limited access (8x5)	Anytime and anyplace (24x7)
Bureaucratic, paper-driven processes	One source of data, electronic
Inconsistent information	Consistent information, integrated, and common interfaces

(Beede, 2000)

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Conclusion

Arthur Levine recently was quoted as saying, "We are faced with a new world, and educational institutions that were created for an industrial society don't match the needs of an information age. The challenge today is not about fixing educational institutions that are broken, but about radically redesigning our whole educational system for a dramatically different world than it was created for originally" (Page, 2000). Indeed, the challenges in the dot-com world are mammoth. Technology changes overnight; the academy changes over centuries. "Peter Drucker warns that the failure of traditional colleges and universities to respond to market forces will result in their demise. He sees little likelihood of their overcoming the structural inertia that grips them" (Swenson, 1998).

The dot-com world is equally rich with opportunities. Enrollment managers tend to be opportunists. We have the potential to be catalysts for change on our respective campuses. By constantly pushing the envelope of technology, we can help position our institutions to respond to student needs and expectations. Students do not have to adapt to the traditional, often bureaucratic world of higher education; too many other options exist. We must find ways to overcome "the structural inertia that grips" us and become nimble enough to respond rapidly to market demand.

One thing we can learn from the demise of many dot-com enterprises: Technology alone is not enough. To be successful, our institutions must have quality programs. The price must be competitive and in line with the perceived value others have of our schools. And our colleges and universities must be responsive to the needs of those we serve.

Epilogue

Enrollment management is indeed "on the brink of a profession." It holds great promise for enrollment managers and the institutions they serve. In truth, it is an eclectic management model. Elements of marketing management, customer relationship management, customer retention management, knowledge management, human resource management, budget management, technology management, and total quality management are embedded in enrollment management. The profession could be viewed as "management du jour" or even as some bizarre management hybrid. On the contrary, it is a profession that has adapted "best practices" from other industries in order to respond specifically to the needs of higher education.

Let there be no mistake: Enrollment is big business. Most institutions are highly enrollment dependent, with enrollment accounting for between 60 to 90 percent of total revenue production. Prudent CEOs regard enrollment management as the institution's lifeblood: They nurture it, invest in it, and have a healthy fear of it.

While such institutional importance and prominence place enrollment managers in a position of power, their's is also a position of significant risk. The mantra "What have you done for me lately?" symbolizes the plight of most enrollment managers. Are they heroes or scapegoats? The verdict is often dependent upon factors outside of enrollment managers' spheres of control. This should not be construed as meaning that enrollment managers cannot influence enrollment outcomes, for indeed, they can.

Throughout this book, enrollment management is defined as a systems approach, a journey, or a long-term, strategic direction. Enrollment management is laden with complexity. Mark Twain once said, "For every complex problem, there is an obvious solution…and it's always wrong." Enrollment managers face complex problems for which there are no quick fixes or easy solutions. The *Strategic Enrollment Management Revolution* is not intended to be a panacea or a template for implementing enrollment management. Too many institution-specific variables exist to prescribe a single formula for success. Concepts and proven strategies described in this text are intended simply to provide a working framework—a place to begin the journey.

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